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A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

PUBLISHED BY
Mitchell Bros. Company.
(INCORPORATED.)

Vol. II.

CHICAGO, ILLINOIS, OCTOBER 15, 1883.

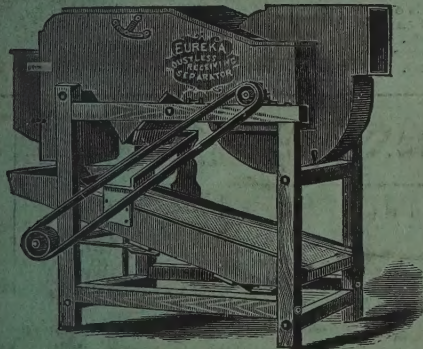
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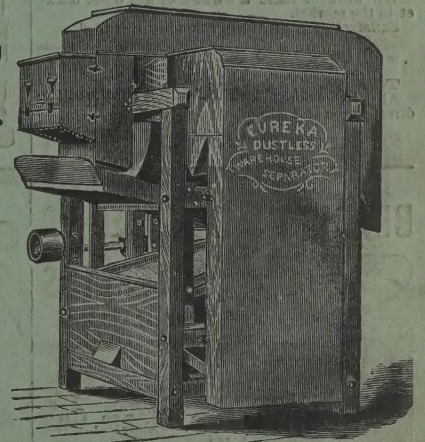
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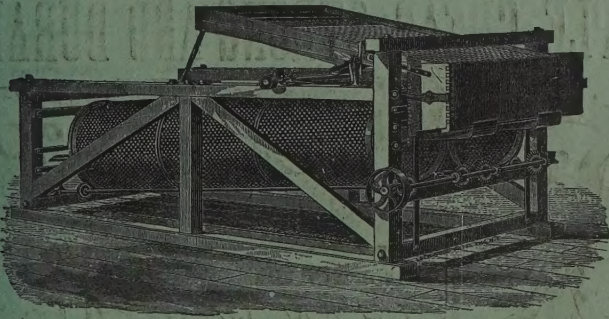
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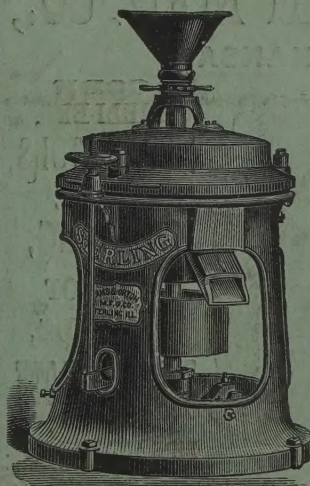
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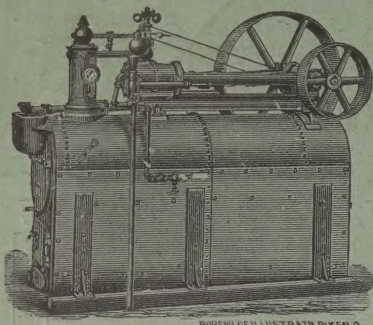
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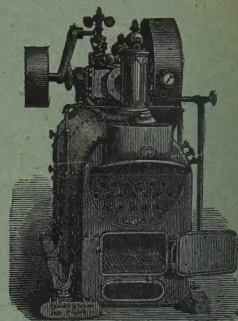
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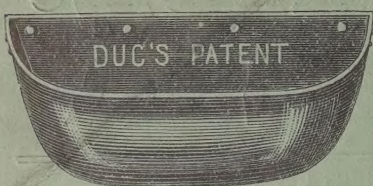
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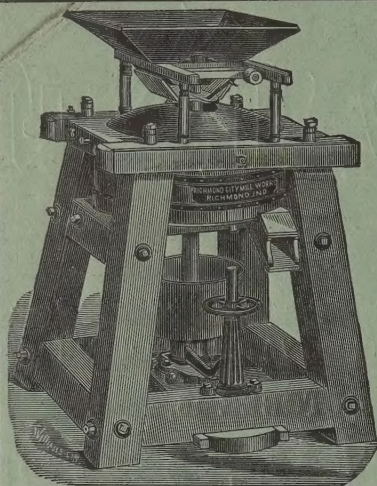
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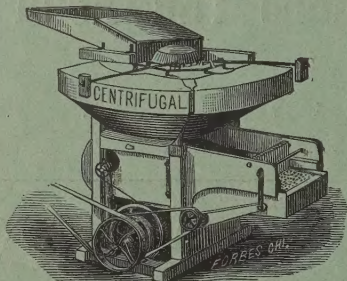
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SUBSCRIPTION PRICE,
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THE WABASH ELEVATOR, CHICAGO, ILL.

Chicago gave the elevator to the commercial world. She was first to demonstrate the practicability of having huge storage and transfer houses in which to handle the cereal products of the West. As Chicago is still the chief grain mart of the world, so she possesses the largest number of elevators, of the greatest magnitude. The aggregate capacity of Chicago's elevators is sufficient to give her twenty-six houses an average capacity of a million bushels each. Several of these great structures of which Chicago is so proud, have already been pictured on this page, and this month we add another, which is acknowledged to be one of the finest as well as one of the largest of the group.

The "Wabash Elevator" is one of the latest accessions to the list of Chicago's great warehouses, having been completed in 1881, since which time there has been but one accession, we believe, to the number. As its name indicates, it is principally fed by the rich country which the Wabash road traverses. Our illustration, which is a faithful one, shows the west and south sides of this elevator. It is located on the south branch of the Chicago River, near the intersection of Thirty-third and Ullmann streets, and is thus the most southerly of the many elevators situated on this branch of Chicago's odorous river.

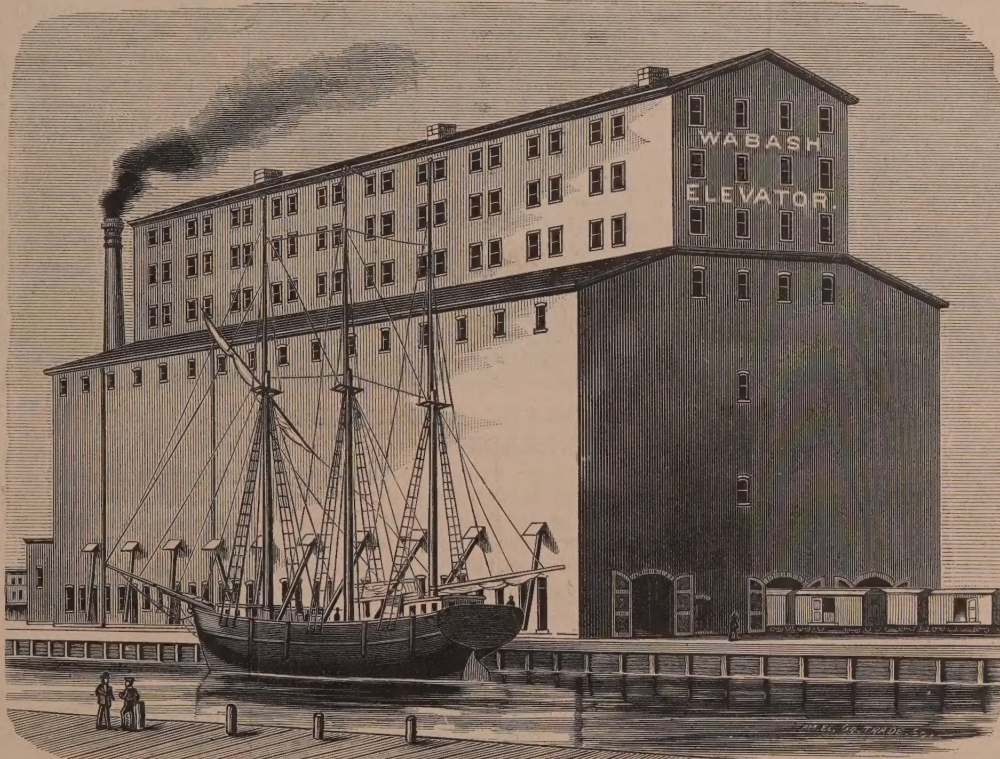
The building is a massive brick structure surmounted by an iron-clad cupola. Its entire length is 339 feet, and its extreme width 103½ feet. The total height of the building is 157 feet, inclusive of the cupola, which is 60 feet high. Like all heavy structures in this city, a foundation was secured by driving piles, and upon this piling was erected a series of stone piers upon which the superstructure and bin work rest. There are thirty-three rows of these piers, and both in foundation and the superstructure the "Wabash" is one of the best-built houses

in the city. The west side of the building fronts the river, and here are the shipping legs for loading vessels. There are also shipping spouts on the east side of the building for loading cars in addition to similar spouts on the interior of the building. On the south front three tracks enter the building. There are twenty elevators in the house, so that its capacity in this direction is equal to all demands made upon it for rapid handling. The

a masterpiece of mechanism. The performance of the engine leaves nothing to be desired in this particular. In the boiler-room are three boilers four feet in diameter and sixteen feet long, only two of which are in use, the third being reserved for exigencies.

The architect of this fine building was Mr. J. A. McLennan, of this city, who furnished the plans and specifications. The Howard Iron Works, of Buffalo, N.

Y., furnished the machinery, with the exception of the engine above noted. The Webster & Comstock Mfg. Co., of this city, furnished the elevator buckets, 5,800 in number, of the Magee patent, their size being 20x6 inches. The same company also furnished 35,000 bolts and washers for the buckets, and also supplied the elevator with their Lenox Patent Spouts for loading cars, with which a car can be loaded in a minute and a half. The buckets mentioned above have a capacity for elevating 6,000 bushels per hour. In addition to the special machinery above enumerated, the Wabash is supplied with all modern appliances for the rapid and convenient operation of an elevator, and in every respect reflects credit on Mr. McLennan's skill as well as upon the owners, Messrs. George L. Dunlap & Co.



THE WABASH ELEVATOR, CHICAGO, ILL.

storage capacity of the building is 1,500,000 bushels, for which 256 bins are provided. These bins are 10½ and 13½ feet and 10½ and 12 feet, and built up from the stone piers to a height of 64 feet.

On the north of the building is the engine and boiler house, surmounted by a brick smoke stack 160 feet high. The engine is of the marine type, and was furnished by the Fishkill Landing Machine Co., of Fishkill-on-the-Hudson, N. Y. There is, we believe, no larger elevator engine in the city, as there certainly is no finer. It is rated at about 1,000 horse-power, and is in every respect

gambling in grain, as it is properly called. We have frequently heard it intimated that a large proportion of the profits of the grain and pork speculators in Chicago and other cities, comes from the farmers in different parts of the country. It is no credit either to the morals or the good service of those who thus part with their money. An honest man should be content to make his living in an honest way, and a man of good sense should know better than to put his foot into the trap these schemers set for him.—*Indiana Farmer.*

A Delaware county farmer recently lost between 3,000 and 4,000 dollars in speculating in grain margins, or

ABSORBING THE ELEVATORS.

Not long ago the *Pioneer Press* published the statement of a prominent elevator man, to the effect that the elevator system of the Minnesota & Dakota company had been operated at a loss, owing, as he believed, to poor management. Since that time a radical change has been made in the control of that corporation. Mr. E. V. White its president, but who never exerted much authority in the management, retired and disposed of his interest. Other changes were made which, in effect, placed the entire system under the control of the Millers' Association, leading members of which now own a majority of the stock. The elevators of this company, with their capacity, are as follows:

	Capacity.		Capacity.
Monticello.....	40,000	Darwin.....	25,000
Clearwater.....	30,000	Litchfield.....	50,000
Waverly.....	30,000	Grove City.....	45,000
Howard Lake.....	65,000	Atwater.....	65,000
Cokato.....	30,000	Willmar.....	50,000
Dassel.....	40,000	St. John.....	35,000
Kerkhoven.....	55,000	Hancock.....	40,000
Benson.....	75,000	Morris.....	40,000
Wheeler.....	30,000	Johnson.....	90,000
Barry.....	30,000	Herman.....	75,000
Norcross.....	35,000	Walcott.....	55,000
Portland.....	65,000		
Total, bu.....		1,035,000	

The transfer of control of this line has now been followed by the consummation of negotiations which have been in progress for some time, and by which the millers' association secures the interests of President Edwin Locke and Messrs. Thornton and Bunker, of the Northwestern Grain Dealers' Association, in the elevator system of the Northwestern Elevator Company, located along the lines of the Manitoba and Northern Pacific roads, the location and capacity of each being as follows:

	Capacity.		Capacity.
Willmar.....	120,000	Grafton.....	35,000
Benson.....	110,000	Brandon.....	35,000
Walcott.....	35,000	Ashby.....	35,000
Everest.....	35,000	Rothsay.....	35,000
Larimore.....	35,000	Ada.....	35,000
Grandin.....	35,000	Crookston.....	35,000
Hillsboro.....	35,000	Fisher's.....	35,000
Thompson.....	35,000	Transfer.....	600,000
Minto.....	35,000		
Ardoch.....	35,000	Total.....	1,355,000

The price paid for the stock held by Messrs. Locke, Thornton and Bunker is understood to have been close to \$150,000, and the purchasers are leading members of the Millers' Association. This corporation, while not appearing as a direct stockholder in the two elevator companies, will hereafter have them under its thumb, and will control the wheat handled by them. There are likely to be other changes in the stockholders of the new company at an early day, by which this purpose may be more effectually consummated. The above change in management gives to Minneapolis men the direct control, all told, of an elevator system having a total storage capacity of nearly 11,500,000 bushels, or more than half of the total capacity of the Minneapolis grain belt, while of the remaining 9,000,000 capacity so little is beyond their control that it is hardly worth mention. The Duluth problem, millers say, is now pretty well solved.

WHEAT REQUIREMENTS AND SUPPLIES.

The statistician of the New York Produce Exchange, Mr. E. H. Walker, summarizes the estimates the of world's present supply and requirements of wheat, which necessarily can only be approximately given, as follows: The Agricultural Department estimates a probable deficiency in the present year's crop as compared with that of 1882 of from 86,000,000 to 120,000,000 bushels. The deficiency of seven states and one territory is 113,500,000 bushels, while the present spring wheat crop is expected to be much larger than last year. The estimates of the surplus left from the crop of 1883 are variable. It is generally thought that, with these reserves, the present exportable surplus will prove equal to that of the crop year 1882-'83, ended June 30. The net aggregate of this surplus, including wheat and flour, was 146,724,315 bushels against a little over 121,000,000 in 1881-'82. The gross exports of wheat and flour from the sixteen principal ports were equal for the year ending June 30:

	1882-'83.	1881-'82.
From—	Bushels.	Bushels.
Pacific ports.....	32,729,617	46,315,176
Atlantic ports.....	112,564,565	72,147,437
Total.....	145,294,182	118,462,613

The exports from the United States to other countries than Europe usually range from about 16,500,000 to 18,500,000 bushels of wheat. It will probably be considerably more than this in this cereal year, as there is a deficiency in the crop of the Dominion to be supplied. The Oregon crop is reported to be one-third short of 1882 crop. The California crop, by recent reports, is disap-

pointing and largely below the early estimates, the export surplus now being reckoned at no more than thirty millions bushels. In making the following preliminary estimates, subject to future revision, the wants are made on a conservative basis and the supplies on a liberal basis, as seen from the present outlook:

PROBABLE REQUIREMENTS OF EUROPE.

	1882-'84.
	Bushels.
United Kingdom.....	145,000,000
France.....	75,000,000
Belgium.....	18,000,000
Holland.....	10,000,000
Sweden.....	1,000,000
German Empire.....	18,000,000
Switzerland.....	10,000,000
Spain and Portugal.....	8,000,000
Italy (possibly much more).....	20,000,000
Greece and Mediterranean.....	8,000,000
Total.....	313,000,000

PROBABLE AVAILABLE SUPPLIES FOR EUROPE.

	1882-'83.	1881-'82.
	Bushels.	Bushels.
From North America—both coasts.....	115,000,000	
From Chili.....	3,500,000	
From Australia and New Zealand.....	6,000,000	
From British India.....	35,000,000	
From Egypt.....	500,000	
From French Algeria.....	1,000,000	
From Austro-Hungary and Danube.....	15,000,000	
From Turkey.....	1,000,000	
From Russia.....	55,000,000	232,000,000

Deficiency on this estimate..... 81,000,000
The supplies of the United Kingdom have been, crop years ended with August for last three years:

	1882-'83.	1881-'82.
	Bushels.	Bushels.
Gross imports.....	161,863,032	137,304,848
Domestic wheat.....	72,244,800	58,484,464
Total.....	234,107,832	195,789,312

Gross imports..... 1880-'81.
Domestic wheat..... Bushels.
Total..... 51,978,368

total..... 186,680,376
The present wheat crop of the United Kingdom, it is estimated, will give an output for food of 60,000,000 bushels. France had a wheat crop in 1882 of 343,000,000 bushels, and imported, during the crop year ended July 31, of wheat and flour 45,280,377 bushels, against 47,429,881 for the corresponding period of 1881-'82. The present crop is estimated at nearly 100,000,000 bushels less than last year. The largest wheat export of India was 35,000,000 bushels. As the crops in the Punjab, the most important wheat-growing section of India, are unpromising, the exports for 1883-4 may be considerably less than the above amount. The largest movement of Indian wheat is in the first half of the crop year, beginning April 1. The Australian supply for Europe will depend on her crop harvested in December and January next, and may be larger than estimated. The average export of Russian wheat during the past ten years has been about 59,000,000 bushels. As there are 7,000,000 acres of her present crop of winter wheat winter-killed, it is not probable that her spring wheat crop will give an export surplus of over 55,000,000 bushels. The European rye crop this year is greatly damaged and decreased, adding to the probable demand then of other bread grain. The above estimates indicate a probable requirement of 313,000,000 bushels, to meet which there is a deficiency from all sources of 81,000,000 bushels.

MANITOBA GRAIN AND MILLING INTERESTS.

Some idea of the fertility of the soil of the Province of Manitoba, Can., may be had from the provision being made all along the line of the C. P. R. to store the yield of Manitoba No. 1 hard raised this year in the Northwest. The list comprises the following:

	Owner.	Capacity.
Place.	Bush.	
Emerson.....	Hepburn & Irwin.....	20,000
"	Waterloo Milling Co.....	30,000
"	Ogilvie Milling Co.....	15,000
"	Trall, Maulson & Clark.....	25,000
"	Hudson Bay Co.....	40,000
Niverville.....	John Macara.....	35,000
"	Trall, Maulson & Clark.....	15,000
"	Ogilvie Milling Co.....	10,000
Winnipeg.....	Ogilvie Milling Co.....	140,000
"	J. H. McMillan & Co.....	65,000
"	Hudson Bay Co.....	5,000
"	R. W. Francis.....	30,000
"	A. W. Bawlf.....	10,000
"	W. H. Burn.....	10,000
"	F. S. Graig.....	30,000
"	McBean & Co.....	40,000
Port Arthur.....	Canada Pacific.....	250,000
"	Ogilvie Milling Co.....	6,000
Morris.....	Ogilvie Milling Co.....	51,000
Gretna.....	Ogilvie Milling Co.....	45,000
Manitoba City.....	Ogilvie Milling Co.....	10,000
Stonewall.....	Ogilvie Milling Co.....	10,000
High Bluff.....	Ogilvie Milling Co.....	10,000
Portage la Prairie.....	W. H. Smith.....	40,000
"	S. F. Smith.....	40,000
"	R. McNair.....	30,000
"	Trall, Maulson & Co.....	40,000
"	J. Mitchen.....	50,000
"	D. J. McBean.....	50,000
"	Hudson Bay Co.....	40,000
"	Newman, Finerty & Co.....	100,000
"	Portage Milling Co.....	100,000
"	Ogilvie Milling Co.....	45,000

Carberry.....	Herbert O. Crowe.....	10,000
"	Ogilvie Milling Co.....	15,000
"	Trall, Maulson & Clark.....	10,000
Brandon.....	Ogilvie Milling Co.....	45,000
"	Kelly & Sutherland.....	30,000
"	Bowerman & Co.....	30,000
"	Woodworth & Russell.....	1,200
"	Fortier & Burke.....	1,500
Virde.....	Ogilvie Milling Co.....	45,000

The above does not by any means include all the grain warehouses in the Provinces, as there are some off the line rail, and others are projected. From the above it will be seen that buyers are fully satisfied with the fertility of our soil, and have every confidence in its future.

In view of the amount of grain successfully garnered it may not be amiss to give a list of the grist mills along the line of the C. P. R., and their capacity to convert wheat into flour:

Place.	Name.	Bbls. capacity per day.
Emerson.....	Stauffer & Fraser.....	80
St. Boniface.....	A. S. Mallock.....	75
Winnipeg.....	Ogilvie Milling Company.....	750
"	D. H. McMillan.....	150
"	Hudson Bay Company.....	50
Portage la Prairie.....	Portage Milling Company.....	200
"	S. Johnston.....	50
Brandon.....	Kelly & Sutherland.....	150

The above list does not by any means include the number of mills in the Province.—*Manitoba Free Press.*

Late Patents.

Issued on Sept. 11, 1883.

CAR STARTER.—Joseph C. Crate, Woodstown, and James F. Morrell, Camden, N. J. (No model.) No. 284,948. Filed May 16, 1883.

CORN SHELLER.—John Thomas Wilson, Easton, Mo. (No model.) No. 284,991. Filed June 6, 1883.

APPARATUS FOR GRAIN DRYING AND COFFEE ROASTING.—William W. Dunn, Fort Worth, Tex. (No model.) No. 284,728. Filed Feb. 9, 1883.

Issued on Sept. 18, 1883.

GRAIN CAR DOOR MECHANISM.—John A. Hagan Three Rivers, Mich., assignor of one-half to the Sheffield Velocipede Car Company, same place. (No model.) No. 285,258. Filed Feb. 27, 1883.

COCKLE MACHINE.—Middleton Crawford, Warton Ont., Can., assignor of one-half to Herbert Campbell, same place. (No model.) No. 285,344. Filed May 24, 1883.

PNEUMATIC GRAIN ELEVATOR.—Jos. Lewis, Chicago, Ill. (No model.) No. 285,047. Filed June 29, 1883.

Issued on Sept. 25, 1883.

BELT SHIFTER.—William R. Santley, Wellington, Ohio. (No model.) No. 285,683. Filed July 9, 1883.

DRIVE CHAIN.—Joseph Patzern and Louis Wagner, Chicago, Ill., assignor of one-third to Peter Delp, same place. (Model.) No. 285,430. Filed June 21, 1883.

CONVEYOR.—Frank L. Pearce, Chicago, Ill., assignor to the Link Belt Machinery Co., same place. (No model.) No. 285,664. Filed July 7, 1883.

PACKAGE ELEVATOR.—Frank L. Pearce, Chicago, Ill., assignor to the Link Belt Machinery Co., same place. (No model.) No. 285,663. Filed July 7, 1883.

PLATFORM SCALE.—Franklin Fairbanks, St. Johnsbury, Vt., assignor to E. D. T. Fairbanks & Co., same place. (No model.) No. 285,600. Filed May 10, 1883.

Issued on Oct. 2, 1883.

DUMPING PLATFORM.—John T. Savage and John Love, Rockford, Ill. No. 10,389. (Reissue.) Filed Aug. 13, 1883. Original, No. 268,943, dated Dec. 12, 1882.

ELEVATOR.—Charles H. Bidwell, Albion, N. Y. (No model.) No. 285,788. Filed July 30, 1883.

AUTOMATIC GRAIN WEIGHER AND REGISTER.—Wm. B. Patterson, Secor, Ill. (No model.) No. 285,921. Filed Apr. 17, 1883.

Issued on Oct. 9, 1883.

DRIVE CHAIN.—Thomas Shields, St. Louis, Mo. (No model.) No. 286,338. Filed June 2, 1883.

FLEXIBLE CHUTE USED IN LOADING AND UNLOADING APPARATUS.—Alfred D. Fox, New York, N. Y. (No model.) No. 286,193. Filed Nov. 13, 1882.

GRAIN DRIER.—John C. Jacoby, Polk, Ohio. (No model.) No. 286,203. Filed March 8, 1883.

MACHINE FOR STEAMING AND DRYING GRAIN.—Luther V. Moulton, Grand Rapids, Mich. (No model.) No. 286,217. Filed May 17, 1881. Renewed Sept. 1, 1882. Again renewed March 24, 1883.

WAREHOUSE TRUCK.—William E. Hoyt, Bellaire, Ohio. (Model.) No. 286,303. Filed July 24, 1883.

The best and cheapest Car Starter is sold by Borden, Selleck & Co., Chicago. With it one man can move a loaded car.

THE LINK-BELT MACHINERY CO.'S WAGON DUMP.

The Wagon Dump for discharging loads of bulk grain has become as necessary a part of every well regulated elevator and mill as the platform scale, and so useful and well known that it is scarcely necessary to mention the advantages of the common form of dump, which, in spite of breaking an occasional wagon axle by its sudden fall, and spilling over a quantity of grain, or starting a runaway team when the driver could not be on the wagon, has nevertheless served too good a purpose to be dispensed with.

It remained for Savage & Love however to locate the dump on the platform scale, thus saving the cost of an additional foundation and the time of driving back and forth, as well as making the dump controllable and under the hand of the weighmaster, who without any delay weighs the loaded wagon, discharges the contents, returns the wagon to its original position and weighs it empty, and

as it is placed in the same foundation with the scale, and the efficiency of the platform scale for weighing without dumping, either for wagons or for stock, is not at all impaired.

The Improved Howe Scale of six ton capacity, with platform eight by sixteen feet, is used. The device is fully protected by letters patent, and a license under all the patents owned by J. M. Harper for grain dumps is furnished with every dump, thus guaranteeing the purchaser against any claims made by him. The cost of scale and dump irons with complete drawings for the woodwork, is \$200. Manufactured solely by THE LINK-BELT MACHINERY CO., 11 to 23 South Jefferson St., Chicago, Ill.

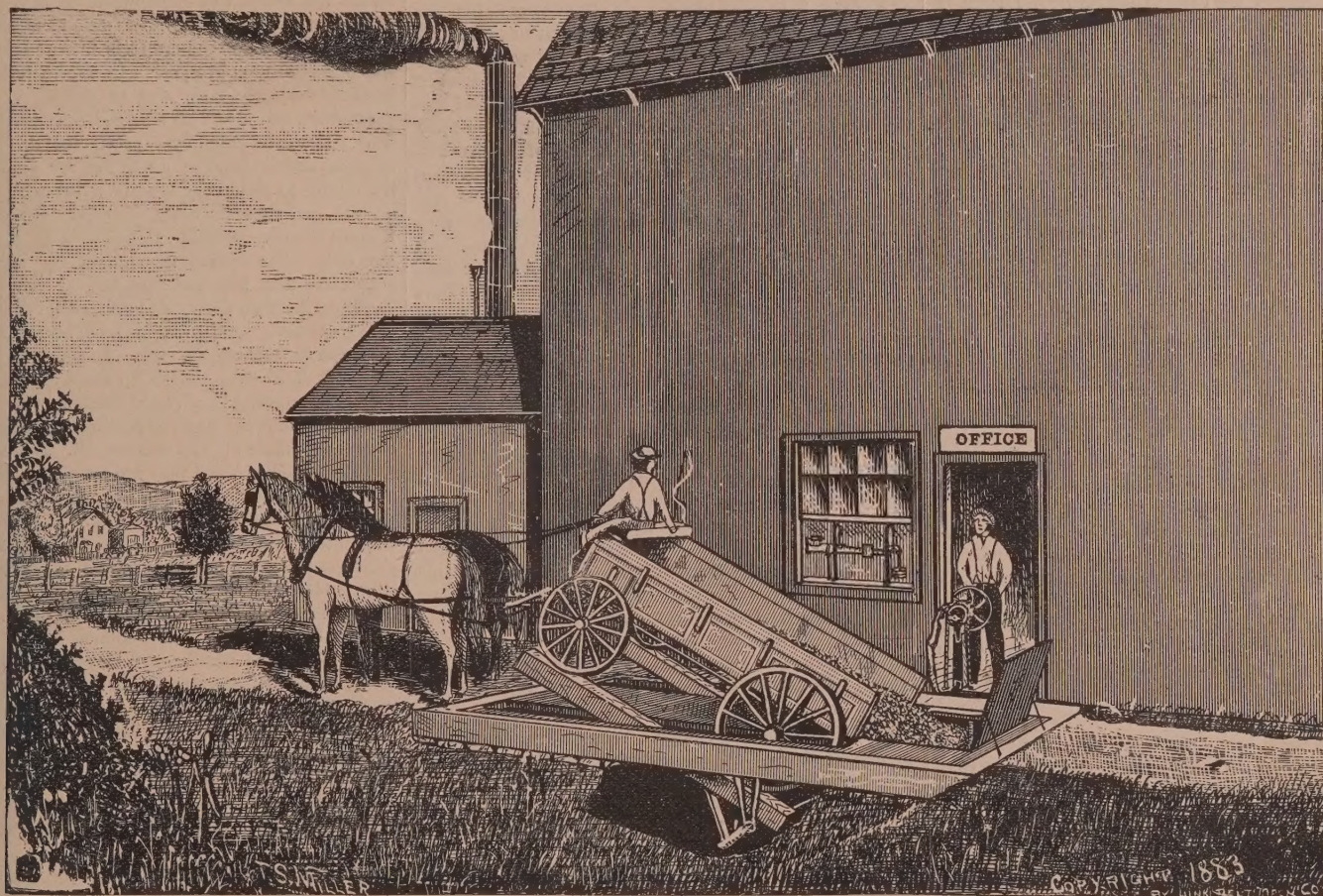
MINNEAPOLIS WHEAT INSPECTION.

There would seem to be severe jealousies between the press representatives of the cities of St. Paul and Min-

neapolis, Minn. The *Daily Tribune*, of the latter city, charges upon the *Pioneer Press*, of St. Paul, an attempt to misrepresent the population, and depreciate the importance of the business interests of Minneapolis, and especially, recently, to berate the character of the grain inspection, which it claims to be wholly in the interests of the Millers' Association and against that of the commission men. On a question recognized as a delicate one and liable to considerable differences of opinion, the *Tribune* says that it has taken pains to carefully interview and obtain the actual views of the class of dealers that, it is asserted, are so greatly injured by the present methods of inspection. The parties visited comprised the most extensive grain dealers, elevator managers and shippers of that region. There were some severe criticisms made as to the rule for grading No. 1 hard wheat from the Northwest with the soft wheats from Nebraska. Aside from this the consensus of opinions, with no apparent dissent, was to the effect that Inspector Maxwell is regarded as a fair and conscientious man, honest in the performance of his duties, and a person of first-rate judgment. The difficulties of deciding with perfect accuracy on the grades of wheat just on the border line, and the liability to disappoint and displease those who had anticipated a higher grade for their shipment, is admitted, while no one can wholly avoid mistakes. One extensive dealer remarks: "If inspection were less rigid, it would hurt business on 'Change, because now the wheat that fails to meet grade

DEEP WATER HARBORS.

Nature, in her bountiful supply to this favored country of all the productive resources of wealth, and the abundant facilities for commerce with other nations in most magnificent field for its best use, has also added our numerous deep water harbors. But, though ranking among the finest in the world, their advantages can neither be utilized or retained without constant vigilance, and a bestowal of wise forecast and industry in their care and improvement. The harbor of New York, not excelled perhaps by any other in the world, oppose



THE LINK-BELT MACHINERY CO.'S WAGON DUMP.

all this in a moment of time, without the team's moving from position, and with the driver in his seat holding his team and secure against accident to team or wagon. It is claimed that a controllable geared movement is absolutely necessary in a dump when combined with a platform scale, as the "fall dump" in common use so injures the scale bearings that weights are unreliable after the first load, and the scale worthless in a short time. It also saves accident to the wagon, fright to the team, and spilling over the contents of the wagon. In operation it is usual to lower the wagon before lifting the end gate, which is done without a grain moving from position, then the end gate is lifted and the load discharged as rapidly as desired, as when a slide is drawn from a hopper.

As usually arranged the scale beam and dump crank are located in the office or elevator so that the weighmaster faces the load and can see that all is free and no mistake in weighing, and if the receiving chute is connected with two bucket elevators or conveyors to take the grain away, a long line of teams loaded with various kinds of grain can be disposed of at short notice during the rush of business, and the farmer allowed to go about his business without delay. So important is this fact it is asserted that where the controllable scale dump is in use, farmers will come many miles out of their way to deliver to one, and are anxious to sell to its owner in preference to other houses, while the owner experiences the same saving in time to himself. In new houses the construction of this dump will cost much less than the old style,

neapolis, Minn. The *Daily Tribune*, of the latter city, charges upon the *Pioneer Press*, of St. Paul, an attempt to misrepresent the population, and depreciate the importance of the business interests of Minneapolis, and especially, recently, to berate the character of the grain inspection, which it claims to be wholly in the interests of the Millers' Association and against that of the commission men. On a question recognized as a delicate one and liable to considerable differences of opinion, the *Tribune* says that it has taken pains to carefully interview and obtain the actual views of the class of dealers that, it is asserted, are so greatly injured by the present methods of inspection. The parties visited comprised the most extensive grain dealers, elevator managers and shippers of that region. There were some severe criticisms made as to the rule for grading No. 1 hard wheat from the Northwest with the soft wheats from Nebraska. Aside from this the consensus of opinions, with no apparent dissent, was to the effect that Inspector Maxwell is regarded as a fair and conscientious man, honest in the performance of his duties, and a person of first-rate judgment. The difficulties of deciding with perfect accuracy on the grades of wheat just on the border line, and the liability to disappoint and displease those who had anticipated a higher grade for their shipment, is admitted, while no one can wholly avoid mistakes. One extensive dealer remarks: "If inspection were less rigid, it would hurt business on 'Change, because now the wheat that fails to meet grade

growing obstacles to the passage of our great steamers with their increasing tonnage, that are compelled to wait for high tide to carry them to sea. Recent investigations show that the dumping of garbage into the bay, which has been so loudly complained of, is of far less importance than the bar which is steadily enlarging from the effects of tide deposits. These obstructions and delays cannot be permitted if New York expects to hold her commercial supremacy, and they require immediate and vigorous measures for their removal. The Gulf ports, with their long sandy coasts, and formidable shoals present a constant series of conflicts, while the great rivers pouring their sediments at their mouths, add greatly to the difficulties of the contest. Money, and the highest skill of engineers, have constantly to be applied to save to shipping the harbors south of Hatteras, such as Charleston, Savannah, Mobile and Port Royal, whose ample harbor is neglected. New Orleans places great value on the Eads jetties that have done so much for her harbor and trade. But the difficulties are far from being satisfactorily solved; and science is still experimenting at the passes on plans for maintaining deep water through the channels by means of the scouring by the waters themselves, which are being followed with deep interest. Galveston is making energetic efforts at improvement, and is ambitious of rivaling the Crescent City in its foreign traffic.

This harbor, though a fine one, has so far provided no adequate outlet for ships of large tonnage. A channel

is now being cut through the formidable sand bar in front of the city, and a depth of seventeen feet has already been attained. A depth sufficient for the largest vessels is determined upon, and the state Government will meet the costs, if any are needed, that the general Government refuse. In connection with the Gulf harbors, the projected Florida Canal assumes a great importance in shortening the route for the export of the great Southern staples.

Legal Notes.

Exported Grain Bags.

The case of *A. Balfour et al. vs. E. L. Sullivan*, Collector of the Port of San Francisco, has been submitted in the United States Circuit Court, before Circuit Judge Sawyer and District Judges Deady and Sabin, on an agreed statement of facts, and on briefs to be filed within ten days. This is a test case, to determine the right of the Collector to exact duty on grain bags which have been exported from this port. The bags in question were brought into this port by the British ship *Majestic*, on April 25th last, from Liverpool. The bags were manufactured in the United States, from imported cloth, and were exported with benefit of drawback under section 3,019 Revised Statutes. The appellants claim that the bags having been exported filled with American grain, are entitled to free entry, notwithstanding the allowance of drawback. Collector Sullivan, however, imposed a duty on the bags as foreign merchandise at the rate of forty per cent. ad valorem, which action has been affirmed by the Treasury Department.

A Barley Deal.

On the 11th of August last the Board of Railroad and Warehouse Commissioners lowered the grade of what was called "new No. 2 barley," thereby making what is known as "new No. 2 barley" an inferior article, of less value than the old commodity of the same name. This seems to have caused some confusion on the Board of Trade, which has resulted in a suit brought by Gerstenberg & Co. against W. F. Johnson & Co. The complainants say that on the 26th of July they bought of defendants 5,000 bushels new No. 2 barley at seventy-six cents a bushel, seller September. After the change of grade of new No. 2 barley was made, defendants tendered 5,000 bushels of barley of the new standard, which complainants refused to accept, claiming they were entitled to the "new No. 2 barley" of the grade it was before the adoption of the recent rule. The defendants therefore sold the barley on complainants' account at a loss of \$800. Gerstenberg & Co. have since offered to pay \$3,800, the full value of the 5,000 bushels according to the old grading, but defendants refuse to accept it. Complainants fear charges will be preferred against them on the board, and they ask for an injunction to prevent any steps being taken by defendants looking to their suspension or expulsion. A temporary injunction was issued by Judge Moran under a bond for \$1,200.

An Order for Wheat by Telephone.

Messrs. Farley, Ferguson & Wilson, millers at Rochester, N. Y., were plaintiffs recently in a suit *vs.* Messrs. Faubel & Roux, grain dealers at Lockport, to recover \$200 damages for failure to deliver wheat on a contract in which the telephone was used. The testimony of the plaintiff, Mr. Wilson, was to the effect that on Jan. 22, being in his place of business in Rochester, he called up by telephone the defendant firm and was answered by Mr. Faubel, as was said. Mr. Wilson had never seen the latter or heard his voice, and the court decided, after objection to the testimony and argument, that identity must first be established. Mr. Faubel then testified to the fact of the conversation as asserted. The plaintiff then resumed and stated that the result of this conversation was an order to the defendants to put on railroad track at once, for the plaintiffs, six cars of No. 1 Clawson white, and four cars of long red wheat. This, as he testified, was agreed to, and the order, for accuracy, by his request, was repeated by Mr. Faubel. The part of the conversation by Mr. Wilson was corroborated by Mr. Farley, a partner, who sat near the instrument, also by a third person then in the office. The four cars of red wheat were delivered, but only one car of the Clawson white. The failure to deliver was of a gross amount of 2,500 bushels, and according to evidence, as the price of this grade of wheat had advanced on Feb. 20 following from \$1.12 to \$1.19 per bushel, the plaintiffs had been damaged to the amount of

\$175. The defendants admitted the order as stated, but Mr. Faubel testified that he had stated through the telephone that he had only three wagon loads of white wheat on hand; that it came in slowly; that he would furnish two car loads, and if he could procure more to sell profitably at \$1.12, he would ship it accordingly. He also testified that he communicated to Mr. Wilson that he was dependent upon the movements of farmers in the vicinity. He asserted that he found afterward he could only obtain one car load, which he shipped to plaintiff. Mr. Faubel was corroborated by his clerk, who was present in the office at the time of communication. The court placed before the jury the question substantially: "Did Mr. Wilson and Mr. Faubel agree through the telephone that the defendants should deliver to the plaintiffs six car loads of white wheat?" The jury, after an hour's deliberation, returned a verdict for defendants.

Attachment and Damages.

Cotton belonging to *A* was attached by *B* as the property of *C*. In the suit to determine the ownership of the property *B*, succeeded. In the attachment suit the cotton was sold by agreement between *A* and *B* by the sheriff, who appropriated the money to his own use. *B* sued *A* for the damages he suffered in the attachment, and also for the value of the cotton, which the sheriff did not pay over. In this suit *Frank vs. Chaffe*, the plaintiff recovered, as follows: Interest on the value of the cotton, less the charges for freight and weighing; counsel fees on the trial, and certain costs therein, amounting to \$1,015.25, but the money in the sheriff's hands was not recovered, and some of the expenses of the action were not allowed. An appeal was taken to the Supreme Court of Louisiana, which, in the opinion delivered by Judge Todd, the rules of law determining the rights of the plaintiff, were thus laid down: "1. In a suit to recover damages resulting from the illegal attachment of cotton seized as belonging to the debtor in the attachment proceeding, in which proceeding the true owner enters and recovers judgment that he is the owner of the property, the party who had taken out the attachment is liable for the actual damages resulting directly from the seizure, among which may be reckoned all the necessary expenses incurred in the suits to recover the property, and also the actual loss in the price of the cotton whilst under seizure. 2. If, however, the cotton is sold by the consent of the parties by the sheriff during the pendency of the litigation, and the proceeds go into his hands, and he fails to pay over the money to the party entitled to receive it, that party cannot recover the amount from the attaching creditors as a part of the damages resulting from the attachment. This loss is caused by the delinquency of that officer, and does not result immediately from the seizure."

DISHONEST GRAIN LOADING.

To Dr. Holmes' long list of reformations which are sure to precede any necessity for ordering ascension robes, Mr. John O. Foering, chief grain inspector of the Philadelphia Commercial Exchange, adds the honest loading of grain cars. "The ingenuity displayed by Western shippers to hoodwink us and cheat their customers is something to wonder at," explains Mr. Foering. "When a car of corn, wheat or barley arrives at any of the elevators we sample it for the purpose of giving a rate which will regulate its prices. Sometimes we find a layer of good wheat on the top of the load three or four feet deep, and then sandwiched between this and the bottom layer, will be a foot or two of bad stuff. Sometimes bad corn or bad wheat is carefully placed around the sides of the car, with the expectation that the inspector will be content to plunge his tryer only into the main part of the load. Kansas, St. Louis, Chicago, and all other great grain depots in the West are similarly afflicted. I have heard of cases where farmers in loading cars have taken sacks of almost worthless material, placed them on the floor, mouths downward, and when the space around them was filled with good grain, pulled up the bags, leaving the columns of bad grain standing in their places."

Says the *Duluth Journal of Commerce*: "The Minneapolis grain dealers who are not in the Millers' Association are beginning to take exceptions to the peculiarities of Minneapolis inspection. Grading based upon supply and demand is no longer popular in the saw-dust city; least we should so infer from late numbers of the *Pioneer Press*."

Communicated.

ELEVATOR ACTIVITY AND THE CORN CROP IN KANSAS.

Editor American Elevator and Grain Trade:—Kansas and the Southwest generally have a very bountiful corn crop. The last report of the Agricultural Department of the state places the crop at 206,000,000 bushels, in round numbers, or a little more than 44 bushels to the acre. The increase over last year is about 50,000,000 bushels. Missouri has a good crop. Taken altogether it is probably not quite as good as last year, but it certainly cannot be very far, if any, behind in total yield. Nebraska's crop is certainly much greater than last year. The corn in Southern Kansas, and all Southern corn, will come into market better than last year. The first car of corn shipped from Southern Kansas last season was shipped by Theo. Lockwood. The first car load this season was shipped by L. Brown & Co. of Neodesha, and arrived in St. Louis Sept. 24. These facts, and all other things, indicate that the crop has matured at least two weeks earlier than last year. In Northwestern Kansas much of the early corn was in shock by the 10th of September, and it was all ripe and fully matured by that time. It was blighted by a protracted drouth in mid-summer, and is therefore not of the best quality, nor will it be liable to yield very heavily. But there is enough, all told, including the early matured corn of Southern Kansas, to make probable a heavy early movement of new corn. The dealers throughout the state seem to appreciate that fact, and commenced preparations for handling the crop nearly a month sooner than usual.

A great many improvements have been made in that direction throughout the state. In the early part of the season G. B. Shaw & Co. put up a new elevator at Cherryvale, Kan., putting in a Victor Sheller with a capacity of 1,000 bushels per hour, expecting that they would thus be able to handle all that was offered. But the crop has surprised them all, and they are now busy building an addition to the house, and adding another sheller and cleaner of the same size as the first. They will thus be able to shell and take care of from 15,000 to 20,000 bushels of corn in a working day, which is more than any other house in the State of Kansas can do. They are also adding large and additional storage capacity.

Theo. Lockwood, of Independence, Mo., is putting in a new sheller and cleaner, and increasing his handling capacity. James Peery has built a new elevator at Humboldt, Kan., and is putting in a large sheller and cleaner. Mr. Beck, of Iola, Kan., is fitting up at Moran with sheller and cleaner for shelling corn in transit; and he is also fitting up a corn meal and feed mill. "Charley" Goodlander, of Ft. Scott, Kan., is building two new elevators, and placing shellers in two old ones at points on the K. C., Ft. S. & G. R. R.

Durkey & Stout, of Ft. Scott, have put in a new sheller of large capacity. The Goodlander Mill and Elevator Company have put in a new sheller and cleaner for their new corn meal mill. They are also building a very elaborate 150-barrel corn meal roller mill. Johnson & Co. of Solomon City, Kan., are putting in a large sheller and cleaner. Somers, of Minneapolis, West & Co. of Glasco and Rogers & Co. of Beloit, are all building additions to their elevators, in which they are putting corn shellers and cleaners, for the sole purpose of handling corn. Smith, of Concordia, is also building a like addition to his house, and adding a large sheller and cleaner. The Clyde Mill Co. of Clyde, are building a new elevator, and they will probably purchase a new sheller and cleaner of the largest size, as their old one is getting worn, besides being too small. Roach Bros. talked strongly of building a new elevator when the writer saw them last, and they are probably at it by this time. Snell is busy rebuilding his elevator, at Clay Center, which burned some time ago. He is also putting in a large sized sheller and cleaner.

All the parties I have named are putting in Victor Shellers. There are other instances of building and improving in the state, which I may take in later. I have mentioned enough to convince you that great activity prevails, and that Kansas will do her full share in keeping up the corn supply of next year.

Yours truly, R. JAMES ABERNATHEY.

The Howe Scale took first premium at Philadelphia, Paris, Sydney and other exhibitions. Borden, Selleck & Co., agents, Chicago.

AN IMPROVED GRAIN BIN.

Last spring we recorded the granting of a patent to Ebenezer Holmes of this city for an improvement in grain bins. We are pleased to present the reader on this page engravings setting forth the salient features of this invention. Referring to the accompanying illustrations, *Fig. 1* represents a partial transverse section of a grain elevator provided with the improvement in question. *Fig. 2* shows a plan view of a series of these grain bins in an elevator, and *Fig. 3* a sectional perspective view of several grain bins.

In the three illustrations similar letters designate similar parts.

A denotes the lower story of a grain-house, in which the cars or teams are loaded or unloaded; *B B*, the bins for storing the grain; and *C*, the floor above the bins, from which the grain is spouted into any one of the bins from the elevator or scale-hoppers. The bins *B B* are generally from five to thirteen feet square and from forty to sixty feet deep, each with a hopper-shaped bottom, *b*, that is provided with a slide or valve for discharging the grain from the bin.

For the purpose of building the bin-walls of a sufficient strength to resist the side pressure of the grain when piled to such a height, these walls are generally constructed of solid timber by spiking planks two inches thick, and, according to the size and height of the bins, either four, six, or eight inches wide, one flat upon the other, and so as to break joints with every course, and that the planks of the longitudinal walls will alternately interlock with the planks of the transverse walls. Whenever a bin has been entirely emptied, and before it is to be refilled with another kind or quality of grain, its bottom should be cleaned of any remaining grain or dust, for which purpose a man is sent down with a broom, and means have to be provided for the man to climb from the top down to the bottom of the bin.

Heretofore rectangular frames made of five-eighths-inch round iron have been secured into the bin-walls about every sixteen or eighteen inches vertically apart, and so as to project equal distance from each side of the bin-wall, for forming the steps in two adjoining bins. These frames were placed between the several courses of planks at the proper height by notching the top of the planks for the step-frames to be inserted, and then securing them by the next course of planks, being spiked on top, and this was repeated every eighth or ninth course of planking. As will be noticed, with rectangular frames thus placed and secured a vertical row of them could furnish steps only for two bins, and when the notches were made a little large these frames slid laterally in the partition and did not give a sure foot or hand hold to the man climbing up or down.

The invention of Mr. Holmes consists in forming the steps of round iron rings *d*, secured between the planks at the junction of a longitudinal and transverse bin-wall, and so as to project equal distances into each of the four adjacent bins. For this purpose every eighth or ninth course of two-inch planking that forms the bin-walls is notched out for inserting a ring, *d*, and then the next above course of planking being placed upon it and secured by spikes will hold said ring rigid in its position.

The advantages claimed to be gained by the ring-shaped steps are, *first*, that bar-iron is much easier bent to the form of a ring and welded than to bend it to a rectangular shape and weld it; *second*, that for forming steps in a series of grain-bins but one-half as many ring-shaped step-frames will be required (each ring providing steps in four adjoining bins) as with rectangular frames, each of which provides steps only in two adjoining bins; *third*, that a ring-shaped step is held more rigidly in the notches of four planks than a rectangular frame will be held in the parallel notches of one plank; *fourth*, that

the steps thus formed in the corner of a bin give a better hold for a man to climb upon and less chance for his feet to slip than where rectangular steps project from one of the side walls; and, *lastly*, that by the use of the ring-shaped steps a great saving in material and labor is obtained. MESSRS. BAUMANN & LOTZ, 57 and 59 Metropolitan Block, this city, well known in connection with the erection of a number of famous elevators, as well as the inventors of elevator machinery, control this valuable improvement and will gladly furnish all desired particulars respecting it.

TRACK INSPECTION TO PREVENT FRAUDS.

The Chicago Committee of East-Bound Freight Traffic held a conference on Oct. 2 with Mr. B. W. Underwood,

Fig. 3

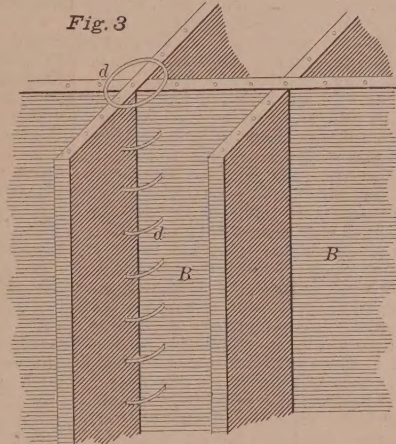
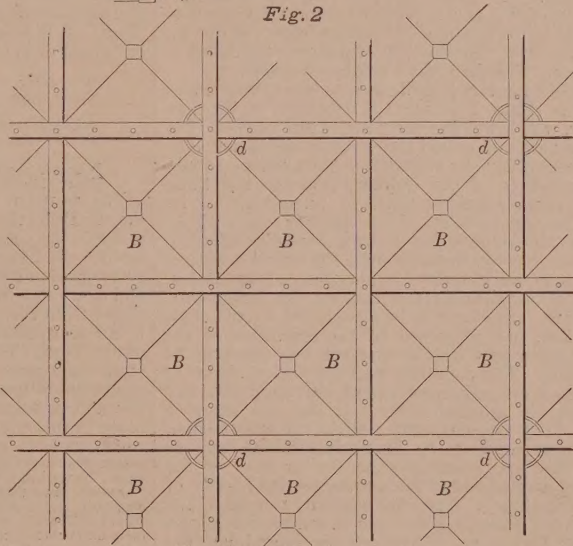


Fig. 2



AN IMPROVED GRAIN BIN.

representing the Shippers' and Receivers' Association of this city, for the purpose of effecting an arrangement by which a more successful system for inspecting grain on track can be inaugurated than the one now in use. There has been much trouble during the last few years on account of frauds practiced in loading cars for inspection on tracks in this city. It is stated that "plugged" cars continually come here from the West, the bottoms of which are loaded with a poor quality of grain, while that on top is of the best quality. When the inspector puts in the plunger to take out a sample it usually does not touch the poor quality on the bottom, and the grain is sold on the sample taken out, which is first-class. After the grain is transferred at the transfer-yards, the buyer's inspector generally finds that the grain is not of the same quality as the sample on which it was purchased. It is now proposed to place a regular inspector at each transfer-yard to thoroughly inspect all the grain before it starts for the East, and if it is found that the grain is not according to sample the car containing it is to be taken out and placed on a side track to be held until some disposition is made of it by the seller. By this means the buyer is protected, while under the present arrangement he has no protection or redress whatever. The railroad officials instructed Joint-Agent Moore to notify grain shippers that the roads were willing to give the new plan a fair trial.

THE SPREAD OF GRAIN SPECULATION.

The *Indianapolis Journal* states that there have been heavy losses this season by the "bulls" in grain speculations. In order to give an idea of the immense amounts of grain and the large numbers who become involved in the movements of these "corners," the following facts and estimates have been made by the *Journal*: The facts and figures given are from fifty-three counties of the state of Indiana, and may be relied upon as accurate in all respects. Between April 10 and June 15 of this year, parties residing in these fifty-three counties "bought" wheat, or margins, to the amount of 210,700,000 bushels. This was bought on a rising market. It was bought at prices ranging from \$1.04 to \$1.17, the larger part of it averaging \$1.12. The amount bought

by parties in this state was, as is seen, more than double the whole annual export demand. Now, it is very probable that Indiana in this regard is about an average of five of the Central Western States. On this basis, then, parties in five of these states—Ohio, Indiana, Illinois, Missouri and Iowa—bought in the same period 1,053,500,000 bushels of wheat, over 200,000,000 more than the largest crop ever produced in this country. All of these margin buyers were future sellers. None of them bought for legitimate uses. This fact, of course, was known to the "bear" side of the operators. When wheat went up to \$1.18 and \$1.19 the rise stopped, because all who were willing to invest in "margins" had done so, and the "demand" ceased. The amount "bought" was known to the wealthy ring of operators, who possessed themselves of these contracts, and the squeeze began.

"The buyers held on through the rest of June and July and part of August, and paid their margins, hoping for an upward turn. They did not know that they had bought over two such wheat crops as we produced this year, but the ring who began the squeeze did. They began in August to sell or forfeit their contracts. The price of wheat went down below \$1, notwithstanding it was known that the crop was a short one. Why? Because there were sellers, hard pressed, on the market with 1,053,500,000 bushels. The result is that the wealthy operators inside the knowing ring have possessed themselves not only of the margins from time to time, but of the grain, so far as it could actually be delivered by some of the parties,

at a price much below the legitimate one based on supply. These buyers were business men, brokers, county officers and farmers. A large per cent. belonged to the latter class, and as a consequence scores of farms have changed hands in the past two months. When you get down to actual figures, as obtained in this state, they give a clue to the singular fluctuations of the markets, and they explain why the price of wheat went below a dollar under the influence of a short crop of nearly 100,000,000 bushels."

It need hardly be said that this class of speculation is the most disastrous to legitimate business that now prevails. Perhaps the disasters to the losing operators may have a tendency to stop it. But the speculation, as a rule, is done in a corner, and so under cover as to make the remedy only available to the sufferers themselves. If these thousand of small operators could be brought to understand that they are merely victims lured to ruin by the great speculators, the purpose of this article would be reached, and they would probably cease to be lambs for the shearing of unprincipled gamblers.

Belgium is credited with being the most productive agriculturally of any country in the world. The average yield of wheat is 27.9 bushels; rye, 25.4; oats, 42.4; barley, 35.1; buckwheat, 24.9; potatoes, 194 bushels per acre. It will be seen that in most of these the average is more than twice that of Michigan. The population of this little area is 5,713,913.

MAKING BREAD DEAR.

BY HENRY D. LLOYD IN NORTH AMERICAN REVIEW.

(Concluded from last month.)

The most remarkable fact in the development of these Exchanges, that which contemplates the corner, is still to be pointed out. One of the managers of the New York Produce Exchange told a committee of the New York Legislature that, if the State should pass a law the exchange did not like, and a member attempted to take advantage of it, they would expel him, and he added that men were constantly turned out for appealing to the law. Members are therefore practically compelled, contrary to their by-laws, whether they desire to do so or not, to submit their differences with their fellows to the summary tribunal of a committee of members, perhaps interested parties, and forego recourse to the law. When the proceedings by which the New York Stock Exchange expelled Mr. W. J. Hutchinson last year, whether justly or not is beside our purpose, were taken into court, the President of the Exchange refused, day after day for months, to answer any of the inquiries of the court as to the action of the Exchange. A member had been deprived of his seat, worth thirty thousand dollars, and his means of livelihood; but the Exchange insisted that neither in this nor in anything else was it subject to the jurisdiction of the courts. The New York Stock Exchange, which is the most powerful instrumentality in the world of finance, thus took its stand outside the law. The courts have decided that the seat of a member is property that can be seized by a creditor and sold for his benefit; but the creditors who seized Mr. Ketcham's seat have been trying for three years to sell it. Those who might buy are given to understand that the Exchange does not recognize the right of the courts to make any such decision, and will nullify it by refusing to accept the purchaser as a member, when he comes up for his election, which is ordinarily a matter of course. The courts of Illinois, hastening to do for the Board of Trade what the New York Stock Exchange is trying to do for itself, have decided that seats in the Board, which are every week bought and sold, are not property. The social consequences of this status of these Exchanges scarcely need be pointed out. These are the greatest markets in the world, but they are not open markets. No one can come in who comes in by way of the law. No one can remain who summons an associate before the courts of justice, under the delusion that there is no spot under the Constitution where the laws of the land are not in order. The public must buy its securities of the Stock Exchange; the world must go to the Board of Trade to buy its food, and the American farmer must sell his crops there. But, for all that, they claim to be "voluntary associations," entrenched within lines picketed against the law.

The sovereignty to which the Produce Exchange and the Stock Exchange aspire has been conferred upon the Chicago Board of Trade by an unbroken line of decisions by the Supreme Court of Illinois. Year after year, those who have been cornered on the Board by its rich syndicates have appealed to the Supreme Court, sometimes for prevention of the wrong, sometimes to remedy it. The monotonous response of the judges has been that the Board was a voluntary association, and that it was not amenable to the courts. The latest decision, just handed down, is a complete abdication of all the rights of the state to exercise any judicial supervision over this corporation, though created by it. Its effects will be felt to the farthest point where a bushel of American wheat or a barrel of Chicago pork seeks a consumer.

The victims of the wheat corner of last July appealed to the court for help on these grounds:

(1) That, expecting to receive the wheat and intending to deliver it, they had bargained to supply it to certain persons, who had secretly formed a clique, and who, in order to make the performance of their contracts impossible, as well as to extort an outrageous price from the public, had bought up all the wheat in the market, and ten million bushels more.

(2) That the clique had done this, criminally and fraudulently, and then demanded ruinous damages of them, under the guise of fictitious prices.

(3) That they had been compelled by the Board against their will to submit the settlement of this claim to a special tribunal of the Board, outside the arbitration committee.

(4) That this tribunal was instituted in violation of the constitution of the State, the charter of the Board, and under an illegal by-law.

(5) That it had not been made up even as required by this by-law, and that its procedure had not followed the rules of the Board.

(6) That it had excluded necessary evidence, had admitted improper evidence, and had been guilty of gross misconduct and fraud.

(7) That it had made an unjust decision contrary to the rules of the Board and the laws of the land, awarding heavy damages to those who, by conspiracy, had made it impossible for them to fulfill their contracts.

(8) That from this decision there was no appeal.

(9) That unless the court would immediately interfere to prevent the Board from acting on this decision, they must either pay these cruel and fictitious damages or be expelled without charges, trial, or notice; be deprived of their membership in the only Exchange where they could carry on their business, worth at least \$15,000 a year to them; that their seats, worth \$3,800 each, would be taken from them, and with these their share in the capital of the board—\$200,000—and its surplus of \$275,000! and that the consequences of this, to them, their

families, their reputation, and their business, would be irreparable, and not to be made good by any money compensation.

To all these statements the Board, in serene reliance on the previous decisions of the court, made answer, in three lines, that all these things might be so, but that it was none of the court's business; and the court said the Board was right, and denied the petition. By this decision the court declared itself the ally of the makers of unnatural prices for food. Hundreds of thousands of dollars were paid, the next morning, to the clique as a penalty for not delivering to it wheat which was already in its possession. Nothing remains for this court but to decide that it could not interfere if the Board decreed that the bodies as well as the fortunes of the cornered should be divided up among the cornerers.

It seems incredible that this should be law in any civilized community, but it is law in the whole food world. This is more than Illinois law. There are years when one man in every three in England, and one man in every twenty in France, must live on American wheat, and every one of them is deprived, by this decision, of the protection of the law in buying his food. Buyers have no rights, if sellers have none. Dante saw written over the door of hell: "All hope abandon, ye who enter here." On the threshold of the Board of Trade, the Produce Exchange, and the Stock Exchange, is inscribed: "Your rights resign within these walls."

This ends an era. Not even the Witch of Endor could have made Adam Smith believe, when he was laboring to prove that men did not deserve to be pilloried for buying and selling wheat, that within a century trading in food would be carried on with this absolute license, in markets of this power and finish. The jail, which was the habitat of the distrusted grain trader of his day, has become this palace of exchange,—capable of handling the world's surplus in an afternoon; fixing the price of real wheat by that of flat wheat; connected by telegraph with the stomachs and bank accounts of Christendom; bringing all the owners of the crop into one place, and then overcoming them by a combination of capital, banks, and the courts; created to apportion the food of nations, and perverted to make artificial famines; a field for free contract, where the most profitable business is conspiracy to make the performance of contracts impossible; a creation of the State, but declared officially to be above the law. "Progress" can go no farther than this. It is of no use for generous souls in search of a cause to take the stump for freedom of contract here. They are a century too late. The fatality of their environment is against them. Freedom has overleaped herself.

If courts of summary jurisdiction, picturesquely called Courts of the Dusty Feet, were a necessity of the mediaeval fair, which was the chrysalis of the modern Exchange, they are a thousand times more necessary now when business is done by electricity. No Exchange could survive the delays of the ordinary courts. But these summary tribunals must be courts of justice, not of injustice. They are to exist only as quicker ways of affording the same remedy for wrong as would be afforded, but with less celerity, by the courts. They must not be handed over to the cliques for purposes of spoliation. The rights of the farmers, the traders, the consumers, are of too vast importance to be abandoned to tribunals above the law, and composed of the members of the guilds that allow such uses as we have described to be made of them. The members who are the "judges" of these tribunals are men preoccupied with their own business. They are ignorant of the law, and the rules of evidence. They are constantly trading in the market, and are almost certain to be interested in one way or another. They may sometimes be the brokers of the very cliques who appeal to them to secure the results of their own conspiracy. They are certainly swayed by the false notions of business honor and morality which prevail in these Exchanges. Contracts are sacred, but the obligation is mutual. When you bind me to deliver you wheat or pork, it is you who break the contract if you prevent me from getting it.

"But these are gamblers." Too many of them are. But their dice are loaves of bread. The chances they take are the chances of human life. Real prices all over the world rise and fall with their gambling prices. That they may play their game of forfeits inside the Board, thousands who cannot get enough to eat must act tragedy outside. Civilization forms an acquiescent ring around these thugs of the Board and Produce Exchange, when it knows that every movement of their struggle within intensifies the universal struggle for existence without. It is unendurable that the courts of the Board and the courts of the state should permit one set of gamblers—even to punish another set of gamblers—to force the prices of bread and meat to starvation figures.

By the use the Exchanges have made of this privilege of having courts of their own—which, in the case of the food markets, under pretense of settling differences among the members, literally permit them to rob the world of its daily bread—they have invited the indignant interference of the public. Summary tribunals the Stock Exchange, the Board of Trade, the Produce Exchange must have, but they must not be such tribunals as these. The trunk line railroads have put railroad civilization ahead a generation by abandoning private war and referring their quarrels to the arbitration of such a man as Charles Francis Adams, Jr., an outsider, expert and just. Something like this must be done to civilize the combats on the Board of Trade. All the markets are being paralyzed by manipulation. They can be saved only by the establishment of tribunals, of competent and disinterested men, to settle the disputes that arise in the course of business and cannot wait for the courts. These official arbitrators could be assisted,

if need be, by arbitrators chosen by the disputants. They should be empowered not only to receive evidence as our judges do, but, unlike them, to send out for any evidence that they wanted. Above all, the supremacy of the law should be acknowledged, and the sacred principle enforced that he who asks equity must do equity. If an outsider can solve railroad disputes,—the most intricate that arise in any business,—Board of Trade issues can be settled as easily. Those who desire to prevent gambling and plundering from becoming the chief ends of the Exchanges can do nothing more useful than to bring them back within the jurisdiction of the law. The courts have disciplined the Common Carrier for generations; it is time to bring the Common Trader within the fold. None but national regulation will do this effectually. If New York attempts to control the evil, it will emigrate to Chicago, and Illinois could only drive it to St. Louis. When capitalists combine irresistibly against the people, the Government, which is the people's combination, must take them in hand. One of the unmistakable signs of the inability of the legislative committee that recently investigated corners in New York to grasp their subject was their failure to see anything out of the way in the attitude of the Exchanges toward the law.

Dr. Drysdale of London, at the last session of the Social Science Congress, pointed out how the death rate rose with scarcity of food. The mean age of the rich in England, at the time of death, is fifty-five; among the poor it is not thirty. The death rate among the children of the comfortable classes is eighty in a thousand; among the working people of Manchester and Liverpool it is three hundred in a thousand. Dr. Farr shows that the death rate of England decreases three per cent. when wheat declines two shillings a quarter. As food grows dear, typhus grows plenty. Scarcer bread means more crime. An increase of one larcey to every hundred thousand inhabitants comes with every rise of two farthings in the price of wheat in Bavaria. The enemies of the men who corner wheat and pork could wish for no heavier burden on their souls than that they should be successful. As wheat rises, flour rises; and when flour becomes dear, through manipulation, it is the blood of the poor that flows into the treasury of the syndicate. Such money costs too much. The following from the records of the Chicago market shows how the wheat corners of the last four years have enhanced the price of bread. The coincidence is doubly significant, because flour is not one of the speculative commodities of the Board. It is bought and sold only for use. But its prices are glued to the speculative quotations of wheat:

THE CORNER OF 1879.

Wheat lowest, January, 81½; highest, December, \$1.33

Flour lowest, January, \$4.00; highest, December, \$6.50

THE CORNER OF 1881.

Wheat lowest, February, 96½; highest, October, \$1.43

Flour lowest, February, \$4.75; highest, September, \$7.50

THE APRIL CORNER OF 1882.

Wheat highest, April, \$1.42; falling to 91½ in November

Flour highest, May, \$6.25; falling to \$4.75 in December

The return of the price after the corner does not fill the stomachs that have been pinched for months. Every moment the corner lasts there is a mouthful of food the less for the laboring man. Every hour of its continuance some child in Pittsburgh or Manchester grows more faint, and every day hundreds of little hands let go another finger from the slippery edge of existence. One of the iron manufacturers of the West, President O. W. Potter, of the North Chicago Rolling Mills, the employer of many thousands of men, when questioned in May about the strike of iron-workers, then believed to be impending, and promising to be the worst that had yet taken place in this country, said:

"The laborers oppose the reduction of wages for the very good reason that they cannot live upon any lower wages. And that is true. They cannot stand the reduction with the high price of living. There are some things that are not to be talked about in public that bring this about, and one of them is the cornering of food on the Board of Trade. A few men manipulate the foods of the working-men, and create a corner in wheats and meats, and the laborer has to pay the increased cost. They turn the screws, and up go the prices a notch or two. And they may let up so that the market goes down a little; but all the time a few men are making money, and the laborer gets no better fare and pays no lower price for the necessities of life. I am apprehensive of the results that all this will bring about, and there is more anxiety in certain quarters about the future than people dare to imagine."

Carlyle has handed down Louis XV. to us as "the great regreter of bread." The sweetest epitaph on any tomb is on the stone to the memory of Sir Robert Peel: "He gave the poor cheap bread." The Carlyle who hunts through the newspapers of this generation, for the history of its people, will dig the regreTERS of our Boards of Trade and Produce Exchanges out of their obscurity, to write against their names: "They made bread dear."

[THE END.]

THE SORT HE WAS.—He had been out West, and as he entered the lunch room he was hailed by an acquaintance with:

"Was the corn hurt much?"

"Corn? Indeed, I forgot to ask about it," was the reply.

"Buckwheat seriously injured, I suppose?"

"Yes, I suppose so, but I don't know."

"They say that tobacco was badly nipped."

"Do they? That's too bad."

"All kinds of fruit got a shaking up, eh?"

"I presume so."

"See here," said the interrogator as he squared around,

"what sort of a man are you? You go off West, travel

around for a month, and come back here without even

knowing that there has been a frost."

"And you see here!" replied the other as he flushed up,

"I want you to understand that when I take a trip down

to Indiana to arrange a marriage with a widow worth

\$200,000 I don't swallow any corn fields or gulp down any

tobacco patches."—Wall Street News.

Notes from the Exchanges.

Mr. Geo. A. Pillsbury has been elected President of the Minneapolis Chamber of Commerce.

Tickets of membership to the New York Produce Exchange have been selling at \$4,700 to \$4,800.

The new clearing house of the Chicago Board of Trade is now in fair working order, and no complaints are heard in regard to its management.

The board of managers of the New York Produce Exchange have under consideration the daily closing of all grain trading on 'Change at 3 P. M., for the winter as well as summer. A vote of the members interested, recently taken, resulted in 240 being in favor of the same and but 28 opposed.

The Committee on Grain of the New York Produce Exchange has decided that "Identity Preserved" grain was not a good delivery on contracts. This decision created considerable agitation on 'Change, especially among the members of the old committee, as it reverses a decision made by them last year, which was confirmed by the Board of Managers.

One cent per bushel is the commission allowed by the Chicago Board of Trade to be charged by members for selling carload lots of wheat; \$3.50 per car for selling bran, shorts and millstuffs; $\frac{1}{2}$ of one cent per bushel for the purchase and sale of 5,000 bushels or more of grain in the Chicago market, and a brokerage of 25 cents per 1,000 bushels is fixed on grain.

The Committee on Grain together with a sub-Committee appointed to confer with relation to the standard for the grade of No. 2 Red for the ensuing crop year have decided to elevate the "bottom of the grade" a little. This effort to give us a grade No. 2 Red that is somewhat worthy of the name, and not a shameful deception, is heartily approved of by the majority of the members. There are, of course, a few shorts who fear that this much needed improvement will work to their disadvantage but this is a matter of too great importance to be treated in a narrow, contracted manner; moreover, it should be borne in mind that the new 2 Red now in store here is still a good delivery on old contracts. Now that all inferior wheat is to be excluded from the grade, we feel pretty confident that the result will prove satisfactory to all concerned.—*N. Y. Produce Exchange Reporter.*

Work on the new building of the Chicago Board of Trade, that has been dragging for the last two weeks on account of an insufficiency of granite, is now being rushed, and the prospect is that there will be no further delay in the work on the walls. The interruption was unfortunate, for the reason that the weather was exceptionally good for outside work during the time that very little was done, and because every hour of delay at this time counts more than at any other time of the year. Were it earlier in the season there would be no fear that the structure would not be got under roof before the severe weather came. At present, however, there is a question about this matter. It will take at least six weeks to get the building roofed, and unless the fall is an unusually mild one the snow will fly before the work is accomplished. The granite contractors promise that there shall be no further interruption of the work in consequence of a scarcity of stone, and if they keep their word, better progress may be made than is now anticipated. Already preparations are being made for continuing work inside the building during the cold weather. About half a dozen of the large boilers that will be employed in heating the structure have been delivered at the building, and they will be put in place as soon as possible, so that the temperature inside the structure may be moderated so as to permit plastering, etc.

Mr. Lyman Blair, of the commission firm of Blair & Blair, Room 3, Chamber of Commerce Building, accidentally shot himself and almost instantly expired at his residence, No. 274 Michigan avenue, in this city, about 1 o'clock P. M., of Sept. 25. Mr. Blair, a few years ago, became a member of the Tolleston Club, having extensive shooting grounds near Tolleston, Ind., in which he has taken an active interest. He had made an arrangement with Mr. Chas. L. Raymond, secretary of the Chamber of Commerce, of which Mr. Blair was president, to go to Tolleston on a shooting trip on the day of the accident, and had given orders to his coachman accordingly. Within ten minutes of his interview with the latter, the report of the gun was heard in his room, and Mrs. Blair found him lying upon the floor unconscious, and he soon breathed his last. Mr. Blair was born in Cortland, N. Y., Nov. 19, 1815, and after receiving a common school education, at the age of nineteen started out in the world for himself. He came by canal to Detroit, and partly by wagon and on foot to Michigan City, where he expected to meet his brother Chauncey, but was disappointed. Not getting employment there he came to Chicago, where he met the same ill-luck. He then went to Milwaukee, and worked at first in a hardware store, afterward as dry goods clerk. In 1837 he took charge of a store purchased by his brother Chauncey, with whom he soon after entered into partnership under the firm name of C. B. & L. Blair. In 1862 his brother removed to Chicago, and Lyman followed a year later. Here he became a member of the Board of Trade, and did a successful business in grain. He became a partner soon after in the firm of Jones & Culbertson, engaged largely in packing. In 1865 Mr. Jones withdrew and the firm of Culbertson, Blair & Co., succeeded, and continued until a few years since, when the present com-

mission firm was formed. Mr. Blair was an energetic man of business, deeply esteemed for his sterling integrity and his agreeable manners, and his loss is deeply felt on 'Change as well as in the circle of his immediate friends. Mr. Blair has had five children, three of whom are living, viz: Mrs. Cyrus Adams, Miss Mamie and Mr. Lyman Blair, Jr., employed in the Merchants National Bank. Deceased was the brother to Chauncey B. Blair, president of the Merchants National Bank, and of Mrs. Densmore and Mrs. Crosby.

The "Chicago Grain and Stock Exchange" is the latest venture that has been launched upon the financial sea, and up to date it is sailing as smoothly as a well-regulated clipper ship. This is doubtless owing to the fact that the concern has not done any business yet. Articles incorporating the Exchange were filed Tuesday at Springfield, with Matthew S. Baldwin, Lawson A. Gilbert and Y. Sterner as incorporators, and the capital stock was represented as \$100,000. Notwithstanding all this, the closest search among similar concerns about La Salle and Washington streets failed to show where the \$100,000, or any portion of it has been invested. Even the Secretary of the Open Board of Trade did not know of the existence of the Chicago Grain and Stock Exchange, but directed the reporter to a small room in the Exchange block which is occupied by Lawson A. Gilbert in connection with several others. Mr. Gilbert was neither there nor thereabouts, but the reporter was respectfully invited by the office boy to leave his orders for Mr. Gilbert with him (the boy) and they would be attended to. This was respectfully declined. The city directory gives as Mr. Gilbert's business "real estate agent," but he had not even his name on the door of the room which he occupies. The second incorporator, Matthew S. Baldwin, who also has the reputation of being a real estate agent in the directory, was hunted up in room 32, third floor, No. 122 La Salle street. The signs of several lawyers adorn the door of this office, but Mr. Baldwin is incog. to the outside world. He was not in his office either. The other incorporator, Sterner, could not be heard of at all. It is not known what plan of business the new Exchange will adopt, owing to the absence of all those interested in it.—*Chicago Times.*

Among the causes that affect the speculative as well as often the legitimate dealings on the Board of Trade, is the confidence inspired in the judgment of some one whose steadily successful operations, even if not large, have given him a reputation for extraordinary shrewdness and accuracy in his calculations as to prices. Such a person often acquires a large following on the part of those who watch his moves and hope to meet success by imitating them. The numbers of these idols who, during the extensive deals of the past few years, have led their worshipers to ruin, has greatly lessened this phenomenal influence. Among the recent specimens of this order is a man who came from the West some half-dozen years since, and has made a fortune, not by large operations, but by quiet watching and judging the market tendencies; buying when the market tide was at ebb, and selling on the top wave of full tide. His general success and the knowledge of it, has sometimes changed the whole current of quotations. As an instance in point, a mistake was lately made in the office of the Secretary of the Board in interpreting a cipher dispatch from Europe relative to the condition of the crops in England, which, being posted, excited the market and caused the price of wheat to rise. On the correction being made an hour later, a fearful tumult occurred in anticipation of a heavy drop in the market. Just at this time the gentleman alluded to above, Mr. Rew, in obedience to an order from an outside friend, put in a bid for 100,000 bushels of December wheat. The rumor that Mr. Rew was buying wheat, noticed on the floor and telegraphed all over the country, at once checked the decline; the unconscious cause of this widespread result received several telegrams instructing him to use his judgment in buying the same amount of wheat for the parties who sent them, while sundry other orders to purchase wheat were sent in. Mr. Rew did not seem flattered by these anomalous orders and did not fill them, while the market soon resumed obedience to its ordinary ruling forces.

LOVE ON A "MARGIN."

BY GRACE COURTLAND.

You ask me for a "put" on love,
To "call" my heart your own;
Why, sir, this "market's strong"—
I've made this "deal" alone.

You say you want to buy me "long,"
Yet "on the board" you're "short,"
I fear you are in a "pinch," my boy,
And will get badly "caught."

Of "sellers cash" I know of many,
But you they never will "take,"
Your "margins" never covered are,
Besides, you are "on the make."

And when the cruel "tumble" comes,
We both would be "in a corner,"
I know you'd skip the "ring," my dear,
And leave me a hapless "mourner."

So put away your "umbrella,"
And take your "coupons" back—
In Love's "option" I'm no "seller,"
Good morning, sir—you're "off the track."

The Trade.

THE Vulcan Steam Engine Works of Baltimore, Md., have made an assignment.

The Simpson & Gault Mfg. Co., of Cincinnati, Ohio, report that their trade is unusually brisk. Their Improved Gladiator Corn Sheller has become very popular, and they write us that they are behind in their orders.

AMONG the corporation licenses lately issued by the Secretary of the State of Illinois is one to the Laminate Wood Co. of Chicago, mention of which was made in our last issue. The incorporators are Henry W. Caldwell, Frank C. Caldwell, Stanley L. Chapman and John A. French.

The Link-Belt Machinery Co. of this city are at work on one ash elevator and an ash-conveyor for the Richmond Paper Co., Providence, R. I.; two elevators for Stedman & Co., Aurora, Ind.; a grain elevator for Shepherd & Dennison, Rochester, Ind., and a fertilizer conveyor for the Bradley Fertilizing Co., North Weymouth, Mass. They are fitting up a log-haul and the driving machinery for the same, for the Winnipiseogee Paper Co., Franklin Falls, New Hampshire. The company contemplate increasing their foundry facilities.

The Hooven, Owens & Rentschler Company, 811 North Second street, Hamilton, Ohio, have lately furnished the Star Manufacturing Company, Mobile, Ala., with a new gauge lathe, a self-feed saw machine and a quantity of pulleys, shafting and hangers; a city planing mill with a Roff moulder, a Wilbur pulley mortiser and a lot of pulleys, belting, shafting and hangers; and Davenport (Ia.) parties with two traction engines, a portable engine, head blocks, and a considerable quantity of miscellaneous machinery. They are quite busy on orders for mill supplies, and report a steady increase in the volume of their business.

Messrs. Moser & Thompson, of Cleveland, have taken the contract for the iron truss roof for the boiler and engine house and the roofing for the saw-mill building of the J. S. Keator Lumber Co., of Moline, Ill. The engine and boiler house is 63x70 feet, and the mill building 60x200 feet. The former, having an iron truss roof, will be covered with No. 20 corrugated iron, and the latter with double-cap flat sheets. The same firm are also covering the Coon & Quail grain elevator at Toledo, the new railroad bridge at St. Paul and building of the Central Vermont Railroad, and have, besides, other minor orders, indicating a very active state of trade in this line of building.

THE FINANCIAL IMPORTANCE OF WHEAT.

The financial importance of wheat, not only to grain dealers and on Boards of Trade, but on the Stock Exchange as well, is very evident, and the shrewd financier of the latter guild watches the prospects of the growing crops with an interest equal to that of those immediately concerned, and with a far wider knowledge of its import. The reasons are readily seen in the light of facts. The wheat of this country, roughly estimated at 500,000,000 bushels, is about one-fourth of that of the world. In the handling, then, of the wheat of the world, five cents per bushel would give the sum of \$100,000,000. The average cost of transportation from Chicago to New York is 14 cents, a range of shipment which is but a small fraction of the routes of a vast amount of these wheats. Of the home consumption, much of that required for seed is imported, while there is comparatively little of that used for food that does not require more or less transportation. The consumption of wheat in bread is constantly increasing, and is a fair index of civilization. The poor rye, barley and potato eaters of Europe, and the colored race of the South, as they improve, demand wheaten bread, and careful statisticians claim that five bushels per capita is only a reasonable estimate of our home consumption of wheat. When one thinks of the vast capital involved in creating agricultural and milling machinery, in the elevators and grain handling facilities that this crop requires, the mind is baffled with the figures. But that which is now immediately represented on the Stock Exchanges are the railroad and shipping interests. Thousands of miles of railway to the best wheat producing regions of the West and Northwest, and through the endless acreage possible to this product in India, have been the result of the requirements of this traffic. The same impulse that has been felt on the continent is moving on to old Asia, and stirring up China, that most ancient and immobile of kingdoms. The islands of the sea and the new continent of Australia have felt the same great wave of influence, while in the present national conflict over another Suez Canal it would be a matter of little surprise should the demands of this traffic place the ships themselves, laden with wheat, upon the rails and transfer them from the Indian to the Mediterranean seas. To the interests of this city this traffic is of the utmost importance, and seems to be duly appreciated. It is stated in this connection by the New York *Daily Stockholder*, that "Chicago is yearly affording a better market than New York, as the prices of all grains are comparatively higher in the former than in the latter city. The estimate for 1880 shows 1.3 cents in favor of Chicago."

The Wall street sandwich—Bull on one side, bear on the other, and a little lamb in the middle.

Elevator and Grain News.

Lenox, Iowa, has a large new elevator of 33,000 bushels capacity.

F. S. Yeazell, of Springfield, Ohio, has gone out of the grain business.

Two new elevators have recently been built at Brandon, Ont., Canada.

Greenwood, Neb., has two elevators, with a capacity of 10,000 bushels each.

Nixon Marshall, grain dealer at Boston, Mass., has made an assignment.

The Winona Mill Co., of Winona, Minn., controls twenty-five warehouses.

M. S. Forbes & Co., grain dealers at Cincinnati, Ohio, have dissolved partnership.

Wilhort & McAdams, grain dealers at Shelbyville, Tenn., have dissolved partnership.

Sterrett, Hill & Childs, an elevator firm at St. Paul, Minn., have dissolved partnership.

Cook, Wells & Co., flour and commission merchants at Council Bluffs, Iowa, have sold out.

It is reported that Charles F. Dewey, grain dealer of Montreal, Quebec, Canada, has left town.

Jas. Hughes & Company is the name of a firm who have started an oil mill at Ft. Wayne, Ind.

Kellogg, Lange & Miller, in the grain business at Minneapolis, Minn., have dissolved partnership.

A large grain warehouse is being erected in Toronto, Canada, near the Ontario & Quebec Railway.

L. B. Hitchcock, a wealthy grain merchant of Pittsburgh, Pa., disappeared from his home Oct. 1.

Sprague & Clark, coal and grain dealers at Sedalia, Mo., have admitted A. Whipple to partnership.

The Ottumwa Starch Works, at Ottumwa, Iowa, are running every day and Sunday, to their full capacity.

Pierce & Keener, grain dealers at Elizabethtown, Pa., have dissolved partnership. Joseph C. Keener continues.

A. J. Brown now conducts the grain business formerly in the hands of John Seebing & Co., of Belle Plaine, Kan.

B. D. Brown & Co., of Burlington, Iowa, has ordered 150 feet of conveyor of the Harrison Conveyor Co., of this city.

Messrs. Hoagland & Clark, grain commission merchants of this city, have dissolved partnership. Hoagland & Hill succeeded.

The Simpson & Gault Mfg. Co. of Cincinnati, Ohio, have just completed a mill for Watson & Blake, at Mauckport, Ind.

The Simpson & Gault Mfg. Co. of Cincinnati, Ohio, had the contract for the mill of F. P. Flippin, at Ashby, Va., recently finished.

Geo. M. Town, of Hinsdale, Mass., has ordered conveyors for handling apples of the Harrison Conveyor Co., Chicago, Ill.

Montague & Tolman, flour and grain men, of Chicago, Ill., have dissolved partnership. The firm name is now G. Montague & Co.

The Nordyke & Marmon Co. of Indianapolis, Ind., have recently furnished mill machinery to Jones & Campbell, of Lynn Camp, Ky.

F. D. McMillan, of Atlanta, Ga., has recently purchased a cotton conveyor from the Harrison Conveyor Co., of Chicago, Ill.

Bensleys & Wagner, grain commission merchants of this city, have dissolved partnership. Bensley Bros. succeed to the business.

The Simpson & Gault Mfg. Co. of Cincinnati, Ohio, furnished the machinery for the mill of Henry J. Miller, at Shanesville, Ohio.

The Nordyke & Marmon Co. of Indianapolis, Ind., furnish a complete outfit for a roller mill to the Hinton Mfg. Co. of Hinton, W. Va.

The dissolution is announced of the partnership existing between W. R. McLaren & Co., grain commission merchants of this city.

It is believed that 800,000 bushels of wheat will be marketed at Madison, Dak., this year. Last year the amount was 500,000 bushels.

C. R. Howard, grain dealer, of Toledo, Ohio, has failed. Liabilities, \$6,500. It is said that the failure was caused by losses in wheat operations.

The Nordyke & Marmon Co. of Indianapolis, Ind., have recently shipped to Drane & Johnson, of Corsicana, Tex., a large lot of mill machinery.

The Simpson & Gault Mfg. Co. of Cincinnati, Ohio, have furnished a line of their Champion Grain Cleaners to J. J. Kochert, of Marr, Ohio.

J. L. Penney & Co., of Hutchinson, Kan., recently ordered an elevator outfit from the Great Western Mfg. Co., of Leavenworth, same state.

J. E. Bush, of Joliet, Ill., has placed an order with the Lechner Mfg. Co., of Columbus, Ohio, for roller chain belting, to be used in his elevators.

The Ellsworth, Kan., Reporter: "Recently the five elevators of this city were filled with wheat. Cars could not be procured to ship out, and the consequence was a number of farmers were compelled to return home with

their grain. One of our grain dealers informed us that there are about 8,000 bushels of wheat coming into Ellsworth daily."

The Harrison Conveyor Co., Chicago, Ill., have orders for conveyors and other machinery from the Wamego Mill and Elevator Co., Wamego, Kan.

The Milburn Gin Co. of Memphis, Tenn., have ordered mill machinery of the Nordyke & Marmon Co. of Indianapolis, Ind., to be shipped to Louisiana.

The Lechner Mfg. Co., of Columbus, Ohio, have recently made large shipments of roller detachable chain to D. M. K. McLeod, of Galveston, Tex.

A new firm has been formed under the style of Green, Lancaster & Co., grain dealers, Philadelphia, Pa., to succeed Green, Hallowell & Co., dissolved.

The Harrison Conveyor Co., of this city, furnished 852 feet of conveyor to Gafford & Co., of Des Moines, Iowa, for their new elevator now being erected.

Noah Bristol now conducts the business formerly in the hands of Bristol & Bixby, elevator men at Fort Collins, Col., the old firm being dissolved.

Amos Payne now conducts the grain business at Port Clinton, Iowa, which was formerly in the hands of Kirk & Payne, the partnership being dissolved.

C. A. Hedge, Salem, N. C., has ordered conveyors of the Harrison Conveyor Co., Chicago, Ill., for carrying sawdust from the saws to the engine room.

The Nordyke & Marmon Co. of Indianapolis, Ind., are furnishing the machinery for the new water mill being built by Hallum & Richey at Villisca, Iowa.

Joseph Harvey of Aledo, Iowa, is about to erect an elevator at Elrick Station, on the Iowa Central Railroad, and will go into the grain business at that point.

The elevator at Dorchester, Neb., which has stood empty for some time, has been purchased by M. H. Buchanan, and is now ready to receive grain.

Caywood & Co., Vining, Kan., have ordered conveyors for handling ear corn from the cribs to the corn sheller, from the Harrison Conveyor Co., Chicago, Ill.

V. Ball, of Colorado, Kan., has contracted with the Great Western Mfg. Co., of Leavenworth, Kan., for a complete flouring mill of 100 barrels capacity.

Gwaltney Bros., of Honey Grove, Tex., have ordered a complete elevator outfit, including power, from the Great Western Mfg. Co., of Leavenworth, Kan.

Several Champion Grain Cleaners were among the machinery purchased by J. Ruble, of Pt. Marion, Pa., of the Simpson & Gault Mfg. Co. of Cincinnati, Ohio.

Messrs. C. S. Bell, of Hillsboro, Ill., and W. F. Wilcox of Marysville, Ohio, have purchased roller chain belting from the Lechner Mfg. Co. of Columbus, Ohio.

Kingsley & Pfeffer, Blue Earth City, Minn., have changed their warehouse into an elevator, in order to handle the increased grain business at that point.

East St. Cloud, Minn., wants a grain elevator. The estimated wheat yield of Benton County is about 150,000 bushels, most of which might be marketed there.

A Champion Grain Cleaner was among the machinery recently purchased by D. B. Starrett, of Austin, Nev., of the Simpson & Gault Mfg. Co. of Cincinnati, Ohio.

J. B. Snell, of Clay Center, Kan., is building an elevator at that place, having ordered his machinery from the Great Western Mfg. Co., of Leavenworth, Kan.

James Hill, of Tecumseh, Neb., has ordered machinery for an elevator of 5,000 bushels capacity from the Great Western Mfg. Co., of Leavenworth, Kan.

An order was recently filled by the Harrison Conveyor Co., Chicago, Ill., for 800 feet of conveyor, purchased by F. O. Swannell, of this city, to be used in his new oil mill.

The Chicago, Milwaukee & St. Paul Railroad Co. have ordered 360 feet of conveyor of the Harrison Conveyor Co., of Chicago, Ill., for their elevator at Wabasha, Minn.

Boorman & Hard, of Atlantic, Iowa, have purchased conveyors and other machinery of the Harrison Conveyor Co., of this city. They are remodeling their elevator.

Peoria, Ill., has become one of the principal grain markets of the West. It is the terminus of ten competing lines of railroads, and has, also, the advantages of water navigation.

L. C. Newsom, who formerly occupied the Columbus elevator, at Columbus, Ohio, which was burned recently, is making arrangements to again enter the grain business at that city.

Messrs. Henry Clews & Co. of New York City, have gone into the exportation of grain, etc. Mr. Wm. Druff, formerly of A. D. Strauss & Co., has charge of the new department.

The Great Western Manufacturing Co., of Leavenworth, Kan., are furnishing A. Showback, of Olesburg, same state, with a full line of machinery for his new mill at that place.

The Harrison Conveyor Co., Chicago, Ill., have recently supplied Wm. Lowden, Odell, Neb., with conveyors and other machinery, to be placed in the elevator he is now building.

C. A. Pillsbury & Co. are about to erect a 100,000 bushel elevator on the site of the old "North Star Mill," Minneapolis, Minn. The lot is 52x128 feet. It was bought from H. J. G. Crosswell by S. B. Rollins and C. N. Warner, and one-half turned over to C. A. Pillsbury & Co. for an elevator. The elevator will be directly in the

rear of the "Pillsbury A Mill," and is much needed by the company.

Mason Gregg, of Lincoln, Neb., is about to build an elevator at Odell, Neb. He has also purchased materials for four others to be located on the Republican Division of the B. & M. Railway.

The Harrison Conveyor Co., of Chicago, Ill., has furnished Mason Gregg with 150 feet of conveyor for his three elevators, located respectively at Kesleton, Diller and Odell, all in Nebraska.

The Wamego Mill & Elevator Co., of Wamego, Kan., are building a new mill and elevator. The elevator will be 36x40 feet, and 70 feet high. It will have a storage capacity for 20,000 bushels of wheat.

Mr. W. W. Sergeant, formerly of Sergeant & Shaw of New York City, has taken the management of the Fulton Grain and Milling Co. of Brooklyn, which has just been incorporated with a capital of \$50,000.

Messrs. Pillsbury & Hurlburt announce that they will honor all checks on their elevator recently destroyed at Harwood, as they have in previous destructions where elevators have been burned to the ground.

The Harrison Conveyor Co., of this city, have furnished 150 feet of their conveyor to Gregg & Kyser for their new elevator at Harbine, Neb., also 150 feet for the elevator at Hardy, Neb., owned by the same firm.

Mr. C. W. Buckley has retired from the firm of Buckley & Rasin, grain brokers at St. Louis, Mo. Mr. Geo. Small has associated himself with Mr. Hanson Rasin, and the firm name is now Small & Rasin.

C. S. McMackin, of Burlington Junction, Mo., is increasing the capacity of his mill and making extensive additions, having ordered a full line of machinery from the Great Western Mfg. Co., Leavenworth, Kan.

The receipts of flaxseed in Scotland, Bon Homme county, Dak., are now averaging about 5,000 bushels a day, the three elevators being taxed to their fullest capacity. The price ranges from \$1.03 to \$1.05 per bushel.

The Sanborn Lumber and Elevator Co. have two new elevators. One is at Sanborn, Dak., and the other at Cooperstown, same state. Each has a capacity of 30,000 bushels. They are of the round style, built by L. C. Barnett.

The Illinois Leather Co., of Chicago, Ill., have purchased of the Harrison Conveyor Co., same place, two conveyors for distributing wet hair from the lower floors of their factory to dry kilns, distributing to fourteen different points.

A Casselton, Dak., paper tells of a merchant of that city, standing in front of his store one morning and counting fifty-three steam threshers at work, all in the range of his vision, turning out a total of 94,500 bushels of No. 1 hard wheat per day.

Edw. P. Allis & Co., of Milwaukee, Wis., have purchased of the Harrison Conveyor Co., of this city, conveyors for the elevator of C. Goodlander, at Liberal, Mo. Also conveyors for Mr. Goodlander's new elevator at McCune, Kan.

The elevator of Wm. London, at Odell, Neb., is nearly completed. The building is 42x42 feet, and fifty feet high. The engine room is built of cut stone, and is 22x26 feet. This elevator is intended to handle a train load of grain daily.

The Goodlander Mill & Elevator Co., of Ft. Scott, Kan., have ordered of the Harrison Conveyor Co., of Chicago, Ill., five conveyors for their new mill being built at that place, and 150 feet of conveyor for their elevator, also at Ft. Scott.

It is reported that Hon. Warren C. Watkins, ex-member of the Illinois Legislature and Assistant Grain Inspector at this city, is shortly to be married to Miss Sarah E. Raymond, who has been at the head of the Bloomington, Ill., public schools, for the past ten years.

By amended articles of incorporation the Northern Pacific Elevator Company increased their capital stock to \$500,000. The corporation was formed May 13, 1882, with a capital stock of \$200,000, which was increased on Feb. 19, 1883, to \$300,000, and again increased as stated above.

Charles Kaestner & Co., of this city, have just shipped to the Cleveland Paint-Manufacturing Company, of Portland, Oregon, a 20-inch Western water cooled paint mill and mixer and a 72-inch putty-mill complete. They have also loaded for R. F. Pettigrew, Sioux Falls, Dak., a 24-inch Kaestner feed-mill.

The Canada Pacific Railroad are pushing forward the construction of the elevator at Winnipeg, Manitoba, as rapidly as possible. The *Nor West Farmer* says, in reference to this elevator: "Supposing it to be of 250,000 bushels capacity, it would take about 700 carloads of grain to fill it, necessitating the running of nearly fifty grain trains alone."

The Webster & Comstock Mfg. Co., of this city, have just taken an order for seven sets of the Coke Power Grain Shovel, with Metcalf Automatic Attachment for the large elevator being erected at Peoria, Ill. They have also contracted to furnish the buckets and eight sets of these same shovels for the half-million bushel elevator being built at Burlington, Iowa.

A new grain elevator and grinding establishment is in operation on the line of the Fitchburg Railroad, in Boston. The building was formerly used for pork packing. The machinery was all removed and the building was thoroughly rebuilt and fitted up. C. W. Arris, one of the best-known mill mechanics in Massachusetts, made and carried out the plans. Charles F. Parsons is operating

he elevator. He leased the building of C. H. North & Co. The grain can be transferred directly from the cars, and the working of every detail is complete and satisfactory.

Crabes, Miller & Co., grain commissioners at Toledo, Ohio, have suspended business.

Strong, Sebring & Co., grain buyers of Kalamazoo, Mich., have made an assignment. The unsecured claims amount to between \$25,000 and \$30,000; assets nominal.

A grain elevator in all its separate detail of parts has just been built by James Howie, of Dubuque, Iowa, for John R. Waller. It is to be transported to Allison, Butler Co., Iowa, and there erected. The building, when finished, will be 24 by 64 feet, and 24 feet high. It will have everything necessary for the perfect handling of grain. The total cost is about \$4,000.

The Lechner Mfg. Co., Columbus, Ohio, manufacturers of elevating and conveying machinery and roller detachable chain belting, have furnished the Mill Creek Distilling Co. and Elias Bloch & Sons, Cincinnati, Ohio, with their Roller Chain Belting for driving purposes; in addition to this they have made shipments to D. M. K. McLeod, Galveston, Tex., for elevators, etc.

It is stated that nearly all varieties of soft wheat throughout Southern Minnesota and Central Dakota are affected with smut. As the amount of wheat in the market is comparatively small at present it is not known just how serious this difficulty will prove. If the whole crop of soft wheat is as bad as the samples, the market value of soft wheat will be greatly depreciated.

Keetenhofen Brothers, of Appleton, Wis., are busily engaged about their new elevator, which is in course of construction near the Northwestern depot in that city. The building is 28x40, with an engine room 20x20, the main building 40 feet high, and when completed, will have a capacity of 20,000 bushels of grain. The machinery has been purchased and will be shipped from Chicago as soon as orders are received to that effect, which will probably be the latter part of this month.

A dispatch from Minneapolis, Minn., states that Messrs. Thornton & Bunker and Mr. Edwin Locke, of the Northwestern Grain Dealers Co., have sold their interest in the Northwestern Elevator Company's system of elevators to Robins Bros., of the Northwestern Elevator Co. The amount paid by Robins Bros. is reported to have been \$140,000. This system of elevators includes transfer elevators and a large number of others located along the main line and branches of the Northern Pacific and Manitoba Railroads.

Mr. Noah Barnhart, a well known miller and grain dealer of Meaford, Ont., Can., died Sept. 10. He was regarded for many years as being in a good financial position, but it is now said that he was bankrupt for at least five years before his death. It appears that several years ago he lost a large amount of money in grain. The liabilities are altogether about \$150,000. It is likely that if the creditors of the different concerns he was interested in agree to make one common estate, thirty-five cents on the dollar will be realized.

Harry DeWitt, the young man who swindled Bassett, Hunting & Co., grain dealers at Mitchell, Dak., by stealing grain from their warehouse at night and selling it to their agent in the morning, is still at large. He came to Mitchell recommended from Chicago, and Marsh, the agent, placed confidence enough in him to let him carry a key to the warehouse and sleep there. He is about twenty-seven years old, five feet ten and a half inches high, weighs about 170 pounds, and of dark complexion. He is supposed to have gone to Iowa.

The Record of Addison, N. Y., has the following in regard to a new elevator that has just been built in that place: "The building is an addition to the mills, and 28x40 feet in size and about 40 feet high. It joins the mills on the east. The basement and first floor form an extension of the main building, while all above is occupied by twelve storage bins, each 9 feet 4 inches by 12 feet in size and 30 feet deep; each bin will hold from 1,500 to 1,800 bushels, thus giving a total storage capacity of about 20,000 bushels of grain. These bins are made with hopper bottoms, and, of course, are firmly braced and stayed. To fill these bins, an elevator runs from the basement to the roof, and empties into a revolving spout, which may be set to fill any bin. This spout revolves on a shaft which extends to the first floor, and is operated by an arm; this arm moves over a circle or dial on which are figures corresponding with the numbers of the bins, so that to throw the spout to a certain bin one has but to move the arm until it covers the number on the dial which corresponds with the number of bin wanted. The receiving hopper is in the basement, and through it passes the elevator belt. To still further facilitate the handling of the rapidly increasing business of the mills, a switch has been laid from the Erie track, and runs close to the side of the building. On this switch a car of grain is run; a movable spout, connecting with the receiving hopper, is put into the car door; two or more men shovel the grain into this spout, the tightener is dropped on the belt of the elevator shaft, the emptying spout turned to the bin desired, and there is a continuous stream of grain moving to the bin as fast as the men can handle it. In this way a car can be unloaded by two men in less than one hour. Heretofore it has been necessary to bag the grain at the railroad depot and haul it to the mills, requiring the labor of three men and a team of horses about six hours to unload a carload of grain. The products of the mills are also loaded into cars at this switch. Five or six cars a week are loaded and unloaded at the mills; the saving in time and expense, with the improved facilities, is therefore a large

item to the proprietors. To get the grain from these bins is as simple and easy as to get it into them. At the point of the hopper bottom of each bin is a circular opening, in which works an ordinary slide or cut-off. Should a small quantity of grain be wanted, it is let directly into a bag; should the grain be wanted for grinding, it is let into a movable spout or draught, and carried to the basement, where it is fed to the mill elevator, and by that carried to the hopper bins over the stones. This building, with its bins, elevator, etc., was designed and erected by J. D. Price, of this village, and is a monument of skill and genius of which any man may well be proud. All the parts have been tested and work to a charm, showing that the architect has built wisely. Many of the minor details are Mr. Price's inventions, and the fact that everything is simple, handy and durable speaks more plainly than words of his inventive genius and executive ability. The Addison Mills were erected about 1851, and their reputation for fine goods has long been established, and is being extended to all parts of the country. Additions and improvements have been made from time to time, until it is safe to say that the Addison Mills are second to none in the state, except in size and capacity. Other improvements will soon be added, as the proprietors are bound to keep abreast of the times, and be excelled by none in the quality of their products. The mills are under the direct supervision of Thomas Paxton, the junior member of the firm, and a man who is honored for his energy and sterling qualities. The mills are crowded to their fullest capacity to supply the demands, and are at present being run eighteen hours a day. In a few days, or as soon as the new buckwheat begins to come in, they will be kept in continuous motion twenty-four hours in the day, as the buckwheat flour from the Addison Mills is rated "A No. 1," and is in great demand from all parts of the country."

INDIAN AND AMERICAN WHEAT.

Our Consul-General at Calcutta, Mr. Mattson, follows up his communication of some months ago with regard to the prospects of the development of the wheat culture of India by forwarding to the State Department an interesting report on the same subject from the Indian Minister of Finance, Mr. E. Baring. This is published in full in the last volume of Consular reports.

Although the export trade in Indian wheat did not practically begin until ten years ago, in 1873, it amounted to 28,000,000 bushels last year. The exports grow as the railroads are extended, and as the building of new roads is now being pushed by public and private enterprise we may expect to see a yearly increase in the supplies of Indian wheat competing with us in the European markets. Mr. Baring points out that very large tracts of land are awaiting cultivation in India, and quotes estimates that it would be possible for India to increase its export to 40,000,000 cwt.

Mr. Baring expresses the opinion that the cost of producing wheat in India is considerably less than in the United States. The farmer who sleeps on the ground and wears almost no clothes and does well if his income averages \$10 a year ought to be able to undersell the American, who has to have a piano for his daughter, and besides supporting his own family, has to contribute to the maintenance of numberless manufacturing syndicates for which he is taxed.

The amount of wheat India can get to market for sale is fixed by the railroad facilities offered. The English understand this, and in order to increase the exports which flow practically into their hands without any return to the poor Hindoo, they are pressing the construction of railroads with what speed is possible to English officialism. In the year 1881 there were but 646 miles of new roads in construction, in addition to the 9,619 miles in operation. There are now 2,332 miles in construction or sanctioned for commencement. This is not very rapid progress, judged by American ways, for we build as much in three months as the English build in a year, but it is, the Finance Minister hopes, introductory to a more rapid pace in the future.

The railroads now being built by the help of the English Government in Canada and in India are constructed with direct reference to competing with the American farmer in the grain markets of Europe. Our simple-minded rural friends who have reaped such generous prosperity from the European necessity of buying food from them, and who at the same time have enjoyed the unusual privilege of refusing to buy their supplies in the markets where they have sold their produce so freely at half what they pay at home, should recognize the fact that serious efforts are being made to break their monopoly. We do not attach exaggerated importance to the competition of the miserable ryot with the well-fed American farmer, but a competitor who, almost without railroads, without any of the improved tools so plentiful here, simply by scratching his soil with an iron-pointed stick, succeeded in raising more wheat for sale last year than Russia, is by no means to be left out of the account.—Chicago Tribune.

Few have any idea of the magnitude of the business carried on over the Illinois & Michigan Canal. The canal was first opened for navigation in 1848 and the tolls that year aggregated in round numbers \$89,000, and increased to \$128,000 in 1854. In 1859 they dropped from \$197,000 the year previous to \$132,000, but again went up, and in 1862 to \$265,000, when the number of boats running was 211, and the tons of freight transported 674,000. In 1864 the tolls had dropped to \$157,000, the number of boats running being 228 and the tonnage 510,000. An increase of rates, coupled with an in-

creased tonnage in 1865, brought the tolls up to \$301,810 and the following year the tolls were the largest ever received, being \$302,958, the tonnage of that year being 746,815, and the number of boats running 230. Later the tonnage has fluctuated, going up as high as 850,000 in 1873, and going down to 600,000 in 1878. Since then there has been a gradual increase, and in 1882 the largest tonnage in the whole existence of the canal is reported, 1,011,287. In 1866 the rates per ton per mile averaged almost exactly 400 per cent. higher than they are now or were in 1882. Since 1866 the number of boats running has regularly declined from 230 to 132 in 1882, and of this number 23 are steam canal boats and 7 tugs. In 1866 the number of clearances was 5,488 and the number of miles run was 406,784. In 1882 the clearances were 4,055 and the number of miles run 335,710. Summarizing the above statements it would appear that in 1866, the year of the maximum tolls, it took 230 boats, making 5,488 clearances and 406,784 miles to transport 746,815 tons, and in 1882, the year of maximum tonnage, it took 125 canal boats and 7 tugs, making 4,055 clearances, including those at Henry and Copperas Creek, and 335,710 miles to transport 1,011,287 tons. In other words, a boat now carries nearly 2½ times as much freight as it did sixteen years ago, and pays 25 per cent. as much toll.

Fires, Casualties, Etc.

Collins' grain elevator, at Peotone, Ill., burned Sept. 23. C. A. Daniel, grain dealer, Arcadia, Iowa, was burned out recently. Loss, \$2,500; insured for \$2,200.

The death is announced of F. F. Elmendorf, of the firm of Elmendorf & Watle, grain commissioners at this city.

The elevator of Bumann & Bauer at Bunker Hill, Ill., had a narrow escape from being consumed by fire recently.

The Pillsbury & Hulbert elevator, at Marwood, Dak., burst recently. There were 60,000 bushels of wheat in the building.

The safe in the grain house of Whitacker & Bailey, at Fairbury, Neb., was blown open by burglars Sept. 26. Very little booty was secured, however.

J. W. Weeks, of the firm of Weeks, Loring & Co., grain commission dealers at Minneapolis, Minn., died of consumption Sept. 11, in his fortieth year.

Moses Trimmer of Atchinson, Kan., fell through a hatchway in his elevator Sept. 26. He was seriously injured, and there are doubts of his recovery.

Simmons & Drummond, grain commission men, Atlanta, Ga., were recently damaged by fire and water to the extent of \$14,000. They were insured for \$11,000.

Magee & Pofenbach, of Elmore, Ohio, lost their elevator by fire Sept. 15. The building contained 4,500 bushels of wheat, 2,000 bushels of rye, and 200 bushels of corn. Loss, \$10,000; insurance, \$7,500.

Hon. George Gaylord, a former member of the Illinois Legislature and a prominent grain dealer at Lockport, Ill., died Oct. 1. He was the father of H. G. Gaylord, of the firm of Gaylord & Co., commission merchants of this city.

James Barnum, a man employed in the St. Louis elevator, St. Louis, Mo., was caught by the sleeve in a pulley while he was oiling some boxes, recently. The flesh of his arm and side was badly torn, and it is feared that his injuries will prove fatal.

The flues in the boiler of the grain elevator at Oakland, Ill., burst Oct. 1. Both ends of the engine room were torn out and the Illinois Midland water-tank was demolished. Swinford, the engineer, received a cut in the cheek from a flying brick.

J. F. Cargill's elevator at Portland, Dak., was burned to the ground recently. The elevator contained 30,000 bushels of wheat. The damage was estimated at from \$40,000 to \$50,000. There was \$20,000 insurance on the building, but none upon the grain. It is stated that a new elevator will be erected at once.

A fire at Dallas, Tex., Oct. 6, destroyed the elevator belong to the Texas Elevator and Compress Company. The elevator contained corn valued at \$5,000, oats at \$2,000 and wheat at \$5,000, all insured for \$15,000. The building was valued at \$17,000, and was insured. John T. Hardie, of New Orleans, La., was the principal owner, but it was under the control of W. C. Howard & Co.

A fire was discovered in Sternberg's "Elevator A," at Buffalo, N. Y., at about 3 o'clock a. m., on Sept. 26, and in less than an hour it was totally destroyed at a loss of \$175,000. The origin of the fire is supposed by the owner to have been from a hot journal. The fire department, with difficulty, saved "Elevator B," across the driveway. The elevator contained 40,000 bushels of flaxseed, 28,000 bushels of red winter wheat, and 18,000 bushels of corn, mostly owned by Eastern parties. Four unloaded cars that stood on the track in the elevator were destroyed. The elevator was built in 1861 for the firm of Marsh & Sternberg. On the death of Mr. Marsh his share went to his widow. The original cost of building was about \$100,000, and the grain was valued at \$102,000; but the loss is estimated as above stated, at \$175,000. The insurance on grain and seed is \$83,000, and on building, \$40,000. Mr. Sternberg says that it is uncertain whether it will be rebuilt.

THE AMERICAN ELEVATOR AND GRAIN TRADE.

Published on the Fifteenth of each Month by
MITCHELL BROS. COMPANY.
(INCORPORATED.)

OFFICE: Howland Block, 184 and 186 Dearborn St., Chicago, Ill.

Subscription Price, : : : \$1.00 per Year,
English and Foreign Subscriptions, 1.50 "

English and Foreign Subscriptions may be sent to W. H. Smith &
Son, 186 Strand, London, W. C., Eng.

A. J. MITCHELL, - - - - Business Manager.
HARLEY B. MITCHELL, - - - - Editor.

Vol. II. CHICAGO, ILL., OCT. 15, 1883. No. 4.

ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

THE STATE WEIGHMASTER.

Senator Torrence, the recently appointed State Weighmaster, closed up his business on Sept. 22, and, as was understood, intended to tender his resignation to the Warehouse Commissioners. As is well known, this new State Department grew out of the long contest between the East-bound freight carriers and the Board of Trade. Owing to violation of the rules of the Board as well as those of just dealings on the part of certain railroads, and a total refusal on their part to settle the matter in any mode, their representatives were refused access to the floor. The roads attempted a series of reprisals by refusing to the officers of the Board access to the weighing facilities of the former. During the long contest traffic suffered severely, and shippers and receivers urged the appointment of a State Weighmaster, which was finally made. Since the settlement of the difficulty, however, between the roads and the Board, these parties find it inconvenient to patronize the new department, and have returned to the employment of the Board's official. At first Mr. Wade, weighmaster of the latter, accepted the position of assistant under Senator Torrence, but he soon found that the expected coalescence of the two departments did not take place, and as the remuneration is entirely dependent on the fees for service, which were not, in this instance, employed, the new department could not be sustained. Weighmaster Torrence seems to have used his best efforts to secure harmony and the success of the enterprise, but he now finds that those interested in the trade are opposed to a State Weighmaster. Mr. Wade continues to act for the Board.

MINNEAPOLIS MILLERS AND THE ELEVATORS.

We record elsewhere the purchase by members of the Minneapolis Millers' Association of a controlling interest in the Northwestern Grain Dealers' Association and also in the system of the Minnesota & Dakota Co. The particulars are given in an article which we take from the *Pioneer-Press*, which can hardly be said to be friendly to the millers. The elevators of the Grain Dealers' Association have hitherto been tributary to Duluth. The reader is no doubt familiar with the fight which Duluth has been making for a share in the hard-wheat trade in the Northwest. And, in fact, Duluth, from her position, is no mean rival of Minneapolis or any other Northwestern city. But the millers of Minneapolis have proved themselves equal to the emergency. Already possessing her magnificent milling facilities, Minneapolis can but ill afford to let the hard wheat of the Northwest slip by and be shipped to rival mills in the East. So with one

sweep Minneapolis gathers in a list of elevators that have hitherto fed Duluth's grain trade. The elevator capacity now controlled by the Minneapolis millers is enormous and they fully realize the importance of maintaining their ascendancy in the hard-wheat region. Evidently, they have no intention of allowing Duluth or any other locality to keep their mills idle by diverting their wheat. Whether the control of the hard-wheat supplies by the millers is the best thing for the producer is another question upon which a difference of opinion may exist.

BURSTING ELEVATORS.

We do not refer to the figurative use of this term, so often applied when we have a bountiful harvest. It is the exact literal meaning of the words which applies to what we have to say. The giving way of elevators under the heavy pressure of the grain is becoming seriously common, it seems to us. A few years ago we saw sixty thousand bushels of wheat spread over the C. B. & Q. Railroad tracks in this city. An elevator built for the storage of oats, only, was utilized during a wheat corner for the storage of wheat, and the greater specific gravity of the wheat was too much for the building and it gave way. A couple of months ago an elevator in an Ontario city dropped its load through its side, and last month a Milwaukee elevator succumbed to the lateral pressure of its contents. Since our last issue a number of similar instances have occurred. At Harwood, Dakota, one of Pillsbury & Hulbert's elevators gave way letting out 50,000 bushels of wheat. A few days previous an elevator near Fargo split and let out 20,000 bushels of wheat. A somewhat similar accident occurred near Moorhead, Minn., in a farmer's granary, 1,400 bushels of oats bursting through and suffocating four men.

Now, many would be quick to lay the blame on the builders of these collapsed houses rather than the owners. It is fair to assume that the charge would in some instances be just; but oftener it is the fault of the owners. Sometimes a very old house is overloaded and collapses. Very frequently the builder of an elevator is limited to a certain expenditure in constructing the house for the owner, and is obliged to erect a building which cannot stand overloading. Let this liability of elevators to collapse be borne in mind both by owners and builders; especially, let the former learn what is a safe load for their houses to carry and never go beyond it, or else strengthen the building.

OFFICIAL FIGURES ON THE CROPS

The crop report of the Agricultural Department was issued on the 12th inst., and seems to sustain the reports as to the damage done to the corn crop by the frosts last month. The injury was greatest in Michigan, Wisconsin, New York and Ohio. There was also severe loss in Minnesota and Dakota, and some loss in elevated portions of Pennsylvania and in the northern counties of Indiana, Illinois and Iowa. Nebraska suffered but little injury, and Kansas none at all. Except in a few localities there was no harmful frost reported in states south of Pennsylvania. The reduction of the state average is: Michigan, from 60 to 45; Wisconsin, from 76 to 50; Ohio, from 82 to 63; New York, from 77 to 57. The reduction is seven points in Illinois and five in Indiana. The loss of condition from drouth has been more apparent, causing slight reductions in the September estimates of many Southern States. The general average condition is 78. It is five points below the October average of 1882, while there is 4 per cent. increase in area. It is twenty-one points lower than the October average of the census crop. The product of the year will be close to 1,600,000,000 bushels, with more soft corn than last year, mostly in the regions that consume their entire crop.

The returns of the wheat yield are now pretty nearly all in, and definite figures as to the result are obtainable. The Department says that the average production was two and a fourth bushels less per acre than the crop of last year. The

yield is but nine and a half bushels per acre in Ohio, ten in Illinois, and but a fraction above ten in Indiana. It is above twelve in Michigan and thirteen in Minnesota, Iowa and California. The Missouri average is twelve bushels; Dakota and Nebraska exceed sixteen, and Kansas averages about seventeen. It is certain the final average yield will not differ much from eleven and three-tenths bushels per acre. The aggregate will exceed 400,000,000 bushels, and may reach 420,000,000.

In regard to other crops, oats average about twenty-eight bushels per acre for the whole country. Nebraska and Kansas have the largest yields. The crop will aggregate 500,000,000 bushels. Barley is a better crop than last year by two bushels per acre. The yield will be 50,000,000 bushels. California, New York, Minnesota, Wisconsin and Iowa contribute three-fourths of the whole product.

MINNEAPOLIS AS A WHEAT MARKET.

The Millers' Association, of Minneapolis, Minn., was, as is stated by the press of that city, organized and entered into for purely business purposes. Its value in creating a steady market for grain in the formative period of the State's history, is acknowledged to be very great, while it has also enhanced the special interests of its members and elevated their work to the rank of one of the great industries of the country. At the same time, as the best grain fields of the Northwest have opened their productive resources, almost limitless, and the increasing surplus of grain produced over home needs has brought into activity the best systems of railroads, improved waterways, and immense numbers of elevators to handle and transport it to home and foreign markets, this association which, apparently in the interests of one class, has thus far commanded so largely these facilities, now grown to gigantic dimensions, seems to the representative of traffic to have become a huge monopoly. Those organizations which, in the infancy of production and manufacture, when every energy is needed to make a reliable market, accessible to the widely scattered producers, few in numbers, and poorly supplied with means, are of immense value, become an incumbrance and a clog to traffic when all these wants are abundantly supplied. And the inflowing grain far surpasses in amount that which the millers can use. The natural interaction of the great law of supply and demand, protected from fraud, undue speculation and the manipulation of rings either of manufacturers, dealers or carriers, is the only safe basis for the healthy growth and stability of trade, especially in those all-important products, the bread grains of the world. These views, presented by the *Pioneer Press* of Minneapolis, are opposed by those who favor the continued existence of the Millers' Association as a manager of the grain trade, by objections, among which is the fact claimed that doing away with this machinery will immensely increase the requirement of middlemen, and exact increased expenditure for their profits. This may be true, but as an injury to trade in the final estimates of all costs, it may be of no importance. Open markets, in the face of supplies almost exhaustless and increasing, with the world's markets creating their demands, however large the numbers they may attract to the enterprises of handling these supplies, add also the depressing factor in cost of keen, vigorous, unhindered competition. The same rules apply to grain that govern all the other commodities that enter as factors into the world's commerce; and the lessons of experience grow daily more clear and legible, teaching that all that is required is protection from the evils of ignorance, and every species of monopoly to place our grain trade upon a healthy and secure basis.

A SUBSCRIBER writes to know if the Chicago Chamber of Commerce and the Chicago Board of Trade are identical. The Chamber of Commerce is a separate institution. It is a stock company and owns the building which the Board of Trade occupies, leasing it to the latter.

Editorial Mention.

AN interesting letter from Mr. R. James Abernathy will be found in another part of this issue.

MR. JAMES M. HARPER of Peoria, Ill., the grain dump man, called upon us the past month and reported business excellent.

CHICAGO Board of Trade memberships have touched \$3,000, which is one thousand dollars less than they were selling for a year ago.

A TASTY CARD elsewhere will remind its readers that Merchant & Co., 525 Arch St., Philadelphia, supply corrugated iron for roofing and siding purposes.

WALTER A. CANTWELL, of Astoria, Ill., writes: "Please continue sending the AMERICAN ELEVATOR AND GRAIN TRADE. I shall always find a dollar to encourage the publication of such a paper."

THE HARRISON CONVEYOR Co. of this city, enclosing a list of recent sales, write us: "Our orders are increasing daily and we feel we are greatly benefited by our advertisement in your paper."

MR. A. A. RIGHTER, who has moved from Rondout, N. Y., to Newark, N. J., in notifying us of his change of address says: "Your paper has been of great value to me. I can confidently say that it will become more and more popular."

MESSRS. G. B. SHAW & Co. of Kansas City, Mo., in a recent letter writes us: "We are engaged in operating several elevators and could not do without your valuable journal; and when our subscription expires, either for this office or Cherryvale, we desire the same renewed."

SOMETHING definite comes from the Panama Canal at last, though just how trustworthy the account is remains to be developed. It is said that there are between six and seven thousand men at work on the canal and one of the engineers has been at Philadelphia to obtain some dredges.

F. H. PEAVEY & Co., one of the largest elevator owners and grain dealing firms in the West, have notified us, by circular, that E. C. Michener, in charge of their business at Minneapolis, Minn., is now a member of the firm, having been given an interest in the business. The firm name remains the same.

GRAIN DEALERS and others who have occasion to send samples through the mails should read the advertisement of the Howe Pattern & Mfg. Co., of Detroit, Mich. Their Sample Mail Envelope has a number of valuable features, which make it a secure and convenient means to avail one's self of.

Two prominent members of the Cincinnati Chamber of Commerce indulged in a slugging match the other day, on the floor of the Chamber. The trouble was over the purchase of some oats, and the defeated party in the appeal to the Grain Committee took a further appeal to Sullivan's methods above mentioned.

FRANK LORING, one of the parties who figured as the banker of the notorious fraud, Flemming & Merriam, was arrested in this city a few days since and brought before United States Commissioner Hoyne, the charge being the use of United States mails for fraudulent purposes. His bail was fixed at \$5,000.

THE New York Produce Exchange Reporter figures out the world's deficiency in wheat at 55,000,000 bushels; *Beerbohm's List* makes it 68,000,000 bushels; the N. Y. Produce Exchange, 81,000,000 bushels. Considering the enormous figures to be dealt with, this disagreement among doctors is comparatively slight.

CHARLES RANDOLPH, who for years has been the efficient secretary of the Chicago Board of Trade, tendered his resignation Sept. 25. It was understood that one of the reasons for his action was the failure of the board to protect its quotations from the bucket shops. Mr. Randolph's resignation was referred to a committee who refused to accept it.

MR. J. SILAS LEAS of the Barnard & Leas Mfg. Co., Moline, Ill., so well known in connection with the manufacture of grain cleaning machinery, corn shellers, etc., was in the city the past month and paid us a pleasant visit. Mr. Leas told us that never before, at this time of year, had their business been so good, especially in corn shellers, cleaners and the like.

THE GREAT WESTERN MANUFACTURING Co., of Leavenworth, Kan., write us that the reports of damage sustained by them during the storm of the 1st inst. were very much exaggerated. The iron roof of the machine shop building was carried away, and they suffered some loss from injury to mill furnishing goods by water, but the building was immediately repaired, and their business is proceeding without interruption.

THE Cincinnati *Price Current* very properly credits a good deal of fish quality to the story told by the Indianapolis *Journal* in regard to extensive speculation in wheat by country buyers, and reproduced elsewhere. The figures are altogether too large and the *Price Current* justly remarks that if purchases of such magnitude had been made prices would have gone up like a rocket. The mania for speculation has become widespread throughout the country, but it has by no means reached the magnitude of the figures given by the *Journal*.

A GREAT many people are astonished that in spite of the smallness of our wheat crop prices nevertheless remain low. The explanation of the present low price, at least, is that in this country we carried over at least 50,000,000 bushels of wheat, while Great Britain carried over 20,000,000, and the rest of Europe as much more of last year's wheat crop. We imagine that prices will soon take an upward turn though we do not believe that they will get up to the point which extravagant bulls predicted a few months ago.

THE CORN SHELLER comes into active play about this time of the year, and those grain men who have not yet procured one, or who want a better one than the old one, should lose no time in procuring efficient apparatus of this description. Such parties we would refer to the advertisement of McGrath & Co.'s Corn Sheller and Corn Cleaner Works, Lafayette, Ind., which will be found on another page. Messrs. McGrath & Co. manufacture several styles of corn shellers, which are more or less well known, besides a variety of machinery for warehouse purposes.

UNTIL a few days ago a number of Board of Trade firms refused to enter the clearing house system adopted by the Board. Some one hit upon a scheme to bring them into the arrangement. A transaction was had between one of the clearing house committee and one of these anti-clearing house firms. The committeeman sent his check through the clearing house. The recalcitrant firm was not there to receive it and did not get it. A complaint was filed, but the directors held that it must be dismissed, as the check had been sent to the clearing house. The firm had either to go without its money or enter the institution.

THE New York Board of Railroad Commissioners seem to be in earnest in the matter of making the railroads adopt their "recommendation" to abolish the charge of one cent per bushel for elevating grain into vessels in the port of New York. This recommendation was made last August, and the roads have not yet complied with it. The Board has not the power to enforce their recommendations in this particular, and the Board proposes to transmit the papers in the case to the

Attorney General, who is the proper person to institute proceedings. The railroads have until to-day to comply with the "recommendation," and if they do not do it the case will be handed over to the Attorney General.

THE New York Produce Exchange has a clearing house patterned after that adopted here a few weeks since. At New York, however, the clearings are done by the Produce Exchange Bank, and the money differences are not only cleared but the trades themselves rung up. This latter feature is likely soon to be adopted here. The "ringing up" is still done here by boys. It is a little remarkable that this institution, which is likely to cut a great figure in produce speculation, was adopted from one originated by the open Board of Trade.

MESSRS. BAUMANN & LOTZ of this city have been appointed the architects, engineers and superintendents of the grain elevator to be built at Weehawken, N. J., the terminus of the New York, West Shore & Buffalo R. R. Weehawken is opposite 42d St., New York. This elevator will have a storage capacity of 1,500,000 bushels. The piling and grillage for the building will be completed by Jan. 1, 1884, when the foundation piers will be commenced as early as the season of the year will permit. The elevator will be provided with all modern improvements. This is a well-deserved tribute to the skill of Messrs. Baumann & Lotz which their success as elevator architects and engineers has amply earned.

MESSRS. THORNBURGH & GLESSNER, 47 and 49 W. Lake St., this city, announce that they have accepted the Chicago agency for the celebrated "Eclipse" Bolt, which is favorably and widely known all over the country. They are now carrying in stock all regular sizes of this bolt at prices identical with those made by the manufacturers. The reader is aware, no doubt, that Messrs. Thornburgh & Glessner are sole manufacturers of the Corrugated Belt Bolt of which they carry about 200,000 in stock, and of the Excelsior Flat-Head Elevator Bolt. This last is hand forged and is a remarkably strong bolt. With these three bolts to offer the trade Messrs. Thornburgh & Glessner are in a position to meet all demands in this line that may be made upon them.

MESSRS. POOLE & HUNT, the well-known founders and machinists of Baltimore, Md., have placed us under obligations for a bound copy of a new catalogue which they have just issued, illustrating and describing the Poole & Hunt Leffel Turbine Water Wheel. This wheel is one of the best known specialties of Messrs. Poole & Hunt, and the catalogue in question recognizes this fact. In getting it up they have aimed to exclude all such matter as may serve to obscure the information which the reader desires to possess. They have omitted all certificates and testimonials, of which they have a volume, believing that printed testimonials are not necessary to advertise its merits. The catalogue contains copious illustrations showing various applications of their wheel to a variety of purposes, all of which are in successful operation, and many of which are triumphs of turbine engineering.

MR. PARTRIDGE, a well-known member of the New York Produce Exchange, has been giving his testimony before the Senate Sub-Committee on Labor and Education, in regard to the matter of corners. Mr. Partridge is certainly an expert and his testimony is worth recording. He plainly said that most operations of a speculative nature were gambling, and that two thousand members of the Exchange were gamblers. When he was asked what remedy he proposed for this sort of gambling, he replied that he would make it a penal offense for any man to buy the necessities of life and hold them for speculation. Mr. Partridge's scheme is all very well; and it is but just that the seal of public disapproval be stamped upon "corners" and the like; but there is, in matters of this kind, so close a relationship with *bona-fide* business transactions, often, that it would

defy the keenest statesman to draw up a bill which would never injure innocent parties and yet prevent "corners" or provide adequate punishment for them. It seems that there are some evils which cannot be controlled in a free country like this. A despot could end a corner in wheat or pork easily enough, but the genius of free institutions seems to be that ills which require vigorous legislation to correct had better be borne than remedied.

A SENSIBLE DECISION RESPECTING NEWSPAPERS.

Many unscrupulous publishers have in the past attempted to force circulation and collect the price of subscription from parties to whom they had sent papers, though unsolicited to do so. There was some ground for the curious construction which such papers placed upon a former decision of the postoffice department, though no reputable publisher would think of descending to such questionable means of obtaining money for copies of his paper. The AMERICAN ELEVATOR AND GRAIN TRADE has sent out thousands of sample copies, but it never has attempted to collect a cent from the recipients of such copies, and never would attempt such a questionable proceeding even if it were countenanced by the law.

But there are plenty of papers who have tried to get money by sending papers regularly to certain parties, and then claiming that any one taking copies from the postoffice thereby acknowledged himself a subscriber. The postoffice department has effectually settled this matter by deciding that newspapers have no privileges in this direction which are not granted in law to every business. The notice given by the postoffice department is as follows: "The liability of a party to pay for a newspaper must be determined by the rules applicable to other contracts. When a publisher, without a request from a party, either expressed or implied, sends a paper, the mere fact that the party addressed takes the paper from the postoffice does not of itself create a liability to pay for it. It takes two to make a contract, and one party without the consent of the other cannot make him his debtor."

This is good law and good sense, and no publisher of a paper worth reading and paying for will regret this action. The only correct, business-like mode of conducting a subscription list of a newspaper is to require payment in advance, and stop the paper when the subscription expires. This effectually prevents any controversy between the publisher and his patrons.

A BOGUS DISPATCH AND ITS EFFECT.

The excitement and effect on trade, resulting from the bogus weather dispatch posted Sept. 21, on the glass door of the box in which are posted the Signal Service reports by the officials of the Chicago Board of Trade, is a striking example of the great value attached to the slightest circumstance that affects the estimates of our market supplies of grain, and the carefulness with which they are watched. At that time the effect of a heavy and widely extended frost was likely to be a serious damage, and greatly decrease the incoming crop of corn. The spurious document read as follows:

WASHINGTON, D. C., Sept. 21.—To Observer, Chicago: Give widest circulation.—Clearing, colder weather and frosts are indicated for the lake regions, and thence southward to Tennessee, on Saturday. Frosts are indicated for the Northwest on Friday and Saturday morning. Cooler and clearing or fair weather is indicated for the Middle and South Atlantic States on Saturday.

(Signed)

HAZEN.

The immediate consequence of the reading of the report was a boom on 'Change in corn, which went up about one cent. Soon after, some one noticed that the report was contradicted by a statement written underneath, and shortly the whole thing was torn down, and down also went the price of corn. Before the adjournment of the Board, Secretary Randolph, it is stated, an-

nounced with some anger, that some one on the floor, earlier in the day, had mutilated the signal service reports, making such alterations in the figures and statements as contradicted their original purport. The sudden rise and fall in the prices of corn occasioned some losses and much inconvenience to business. It was supposed to have been the work of some unprincipled speculator to further his own interests.

On the same day on the call board a little flurry occurred caused by a transaction prompted by a similar spirit. Corn was offered for sale at 49½ cents, but a bidder persisted in offering to pay 50½ cents, and two small sales were effected at 50 and 50½ cents respectively. When men pay more than they are asked for a commodity, there is an "African in the fence" somewhere, and in this case, doubtless, a handsome pool of "bucket shop" margin awaited the "ticking" in of a Board sale at this figure in order to be cleaned out.

EXPORTS OF BREADSTUFFS.

The report of the Bureau of Statistics, issued Sept. 21, as to the relative total exports of grain and flour during the month of August, and the eight months ended Aug. 31, as compared with the same periods of 1882, will be found in the following table for periods as stated:

TOTAL FOR AUGUST.

Grains, etc.	1883.		1882.	
	Bushels.	Dollars.	Bushels.	Dollars.
Barley.....	24,853	12,799	28,135	18,172
Corn.....	5,738,607	3,438,266	289,128	243,101
Oats.....	30,634	30,964	30,300	19,127
Rye.....	790,244	504,892	66,629	50,962
Wheat.....	9,550,588	10,794,363	20,868,199	24,341,960
	Barrels.		Barrels.	
Corn Meal.....	19,368	62,872	19,510	82,694
Wheat Flour.....	697,671	3,971,973	683,491	4,195,304
Total Values...		18,816,129		28,951,320

The above table shows a decrease in the value of our exports of breadstuffs during the month of August last as compared with those of August, 1882, to the amount of over \$10,100,000. During the same periods compared our exports of corn have increased this year over 5,400,000 bushels, and about \$3,200,000 in value.

TOTAL FOR EIGHT MONTHS ENDED AUG. 31:

Grain, etc.	1883.		1882.	
	Bushels.	Dollars.	Bushels.	Dollars.
Barley.....	242,094	159,207	88,404	64,649
Corn.....	45,466,907	29,728,455	10,794,379	8,139,237
Oats.....	229,900	115,255	101,732	99,556
Rye.....	2,576,632	1,642,851	761,751	638,746
Wheat.....	42,645,125	48,577,193	64,216,188	75,718,929
	Barrels.		Barrels.	
Corn Meal.....	181,889	610,973	153,616	576,347
Wheat Flour.....	5,734,154	33,203,128	4,059,835	24,933,444
Total Values...		114,237,045		110,276,898

There has been an increase in the total value of our exports of breadstuffs during the eight months of this year thus compared with the same period of 1882, amounting to about \$4,000,000; the excess of that of corn having been over 34,600,000 bushels, exceeding in value the export of last year more than \$21,500,000. This balance covered the deficiencies of the exports of other grains, especially of wheat, which amounted to over 21,500,000 bushels, and in value to over \$27,100,000.

A CURIOUS state of affairs has existed in some of the elevators in Chicago. Some of them have been overflowing with grain, while others have been half empty. Last week the manager of the Armour, Dole & Co. elevators offered a rebate of 1½ cents a bushel for the removal of 700,000 bushels of wheat from their four Chicago, Burlington & Quincy houses. Of this 700,000 bushels only 150,000 were shipped. The rest was simply transferred to the National Elevator. Rebates have been offered heretofore by elevator proprietors to encourage, for one reason or another, the removal of grain from their houses. This one is said, however, by elevator men to be the

largest that has ever been offered. It is equivalent to the full charge for the first ten days' storage on the grain, and amounts on the whole 70,000 bushels to a rebate of \$10,500. Speaking of this occurrence a local paper says: "But while the four Chicago, Burlington & Quincy houses are making extraordinary preparations to accommodate wheat, the houses on the other roads are standing half empty. The National, for instance, on the Chicago & Alton, instead of emptying its house is glad to take part of the old grain in the Armour, Dole & Co. houses. This shows how the grain-growing districts have of late been changed or extended. The elevators on the Chicago & Northwestern and Chicago, Milwaukee & St. Paul tracks, and the Chicago, Rock Island & Pacific, were the ones a few years back which were crowded with grain. The new Nebraska and Kansas wheat districts have, however, changed the tide, and now, as an elevator man who grieves that his houses are on another road, puts it: 'The Burlington has the call.'"

CARRYING BY THE CANALS.

Under its appropriate head we give some figures relative to the business which has been done on the Erie Canal from its opening on May 8 to Oct. 9. In the same column will be found a brief statement of the business done by the Erie's less pretentious co-laborer, the Illinois & Michigan canal, since its completion in 1848. The revival of interest in the canals all over the country dates back only about a year and a half, and it is an opportune time to call public attention to the importance of these channels of transportation. The time is opportune because now that public interest has been aroused in this direction statements of fact will make more of an impression, and will count in the movement now in progress to make the Erie a steam canal and connect Chicago with the Mississippi by a ship canal. Of course it can never be expected that canals will do the bulk of the carrying trade when nature has not provided her own waterways. The railroads will no doubt always remain the heaviest carriers of produce; but the canals are an important factor in transportation, and if the public is kept fully alive to the need of maintaining and increasing them they will continue to act as a wholesome check on the extortions sometimes resorted to by railway companies.

CONSIDERABLE excitement has been occasioned among commission merchants the past month by the circular of a well-known Chicago Board of Trade firm in which it offered to receive money from customers in sums of from \$100 to \$1,000, to be used for speculation purposes at the discretion of the firm. A vast deal of criticism has been evoked by this circular, and it has been freely called a repetition of Flemming & Merriam's business methods. This the firm stoutly denies; and in an anonymous communication, presumably from the firm, it is said that "it is not the first time that a business firm ever offered to act as discretionary brokers to the public. But—and here is the hinge on which the matter swings—it is the first time that a firm of long and honorable prestige on the Board—the first time that a firm high in authority, high in commercial standing, strong in name and presence and experience and resources have ever tendered their judgment and all their advantages in surveillance of popular interests in speculation. Adventurers have practiced impositions upon the public by falsely pretending to great advantages for a profitable handling of the moneys of others; but the fact that wild-cat insurance companies and dishonest bankers have defrauded society time and again is no indictment of legitimate indemnity or of legitimate banking." Nevertheless, the offer of the firm made in the manner it has been looks a trifle suspicious.

THE firm of L. J. Cox & Co., grain commission merchants of Baltimore, Md., have been in the business, father and son, over fifty years.

Of the 4,000,000 farms in the United States, Illinois, Ohio, New York, Missouri and Pennsylvania have more than 200,000 each.

Canals and Marine.

At present there are about 2,000,000 bushels of grain at Buffalo ready to be transhipped.

There is a great demand for wheat carriers at Duluth. There has been a scarcity of tonnage, and the elevators are running over. Wheat promises to be a little relieved in the next few days. A good many craft arrived with coal. The rate to Buffalo is now five cents.

The grain cargo insurance pool of this city paid the \$25,000 insurance on the propeller Potomac, badly damaged by striking a reef off Ahnapee some weeks since while towing a barge and out of her course to Buffalo. The matter has for some time been in dispute, but it being shown that the agent, Bruce, knew of the intended towing of the barge when the insurance was placed, the money was paid though the agent lost his companies.

At a recent meeting of the Montreal Board of Trade Mr. F. W. Henshaw, the President, referred gratifyingly to the continuance of operations with a view of deepening the ship channel to 27½ feet. Going on to refer to the recent expression of public opinion in favor of the assumption of the control of the telegraph system by the government, he stated that the matter had been brought before the council. That body had resolved to suggest no particular plan for the bringing about of the change, but simply to point out to the government its necessity.

The Collector of Canal Statistics furnishes the following statement of shipments via Erie Canal from Buffalo since the opening of the canal, May 8 to Oct. 9: Wheat, 14,478,625 bushels; corn, 155,123,950; oats, 2,413,304 bushels; rye, 1,710,305 bushels; bran and chopstuff, 1,298,547 bushels; grass seed, 254,020 bushels; oil-cake, 4,415,994 pounds; flaxseed, 105,310 bushels; lumber, 55,532,840 feet; staves, No. 50, 254,900; shingles, 8,948 m.; coal, 36,233,462 tons; pig-iron, 4,012,351 pounds; lead and products, 4,460,496 pounds; oil, 231 barrels; merchandise, 354,635 pounds; sundries, 771,500,084 pounds. Number of boats cleared, 5,410.

The New York Tribune "Note-Book": Few Americans have any idea about the Welland Canal. I looked at this new achievement of the Canadians last week. The Great Western Railroad of Canada runs beneath the canal by tunnel. The old Welland Canal, which is still used, lies some two or three miles to the west of the present one. The old canal was a tow-path concern, and did not admit a steam-tug coincident with the vessel. The new canal has fourteen feet of water when there is high water, but in summer drouth it is said to be less than fourteen feet. It is a magnificently-constructed work, and excites surprise that the Americans should have permitted the Canadians to anticipate them. Yet it will be observed that the facilities for this canal through Canada are much better than through the United States. The axis of the two lakes, Erie and Ontario, passes through Canada; the Niagara River issues from the extreme eastern end of Lake Erie, while Lake Ontario overlaps Lake Erie considerably in Canada. It is rather startling to see moving through the apparently solid ground, for the country is very high where the new Welland Canal is built, tall, massive ocean steamers, full-rigged ships, etc., sometimes as continuous as a caravan across the desert. They go along silently, not a sound or whistle escaping them, and the visitor sometimes thinks his mind is deceived, and that the landscape is haunted.

Whenever the country is favored with good crops, and there is an active foreign demand for our surplus grain, beef and pork and the railroads begin to pile on excessive rates, then the farmers and stockmen of the Northwest wake up and begin to talk Hennepin and Illinois ship canal. For the last two years, however, the crops of the Northwest have been comparatively light and the railroads being glad to carry grain, cattle and hogs at reasonable rates, the needs of water competition were not felt as they had been in previous seasons, and the clamor for waterways has as a consequence, nearly died out. The fact, however, in no degree lessens the importance of the Illinois Ship Canal as emphatically the one great waterway of the country, the construction of which is ever a necessity to complete the grand system of internal navigation which nature on so vast and man on so limited a scale, has provided for this country. The Northern Lakes, the Canada and New York canals, and the St. Lawrence and Hudson Rivers afford four thousand miles of water carriage of unlimited capacity to convey the product of the Northwest to the East, and the Mississippi system affords a like amount of navigable waterways from the Minnesota lakes to the Gulf of Mexico, and the two vast systems are so closely blended that dozens of railroads find their largest profits in carrying freight from one to the other. Now, looking at the statistics, showing the enormous amount of carrying done by these two water systems, and how this carrying between the two is intermingled, and then looking at a map of the country and seeing how very closely the two systems approach each other, and how trifling would be the labor and cost of connecting them and making them one, and the broad-visioned statesman—like De Witt Clinton, for instance—realizing the needs and the boundless wealth of this country and capacity to supply its needs, is filled with amazement at the fact that this one short, inexpensive, yet all important connecting link should remain unconstructed. The subject once more forces itself into notice by the fact that a party of government surveyors is at this very time engaged, under an order of Congress made nearly two years ago, in sur-

veying the route of the Illinois Ship Canal and getting ready to prepare an estimate of its cost.—*Ottawa (Ill.) Free Trader.*

The agents in this city representing the "Big Four," marine insurance companies held a meeting Oct. 3, and adopted a new card of rates, which went into immediate effect. This was a somewhat unexpected development in the marine cargo insurance squabble as the several changes in rates that have occurred during the season have been made by the pool, the outside companies writing risks at pool rates. The contract rate made by the "Big Four" for the month of September was on a basis of 50 cents per \$100 on cargoes shipped to Buffalo on A vessels, and their contract rates for October were the same as adopted Oct. 3. As the pool rates during September were 100 per cent. lower than those named in the "Big Four's" contract, the latter were obliged to write at the lowest rate or not at all. The pool rates have not yet been changed, and consequently the raise in rates amounts to nothing so far as actual business transactions are concerned, as shippers holding contracts with the "Big Four" are now at liberty to insure in the pool so long as its rates are lower than the "Big Four" will accept. But the pool does not want to take risks at present rates, its motive in cutting rates down being simply to keep the "Big Four" from making money, and, by starving them out, force them into a compromise. The following is the card of rates adopted by the "Big Four" for the month of October:

From Chicago.	A vessels.
To Lake Huron ports.....	\$.60
To Buffalo.....	.80
To Lake Ontario ports.....	1.00
To Ogdensburg.....	1.25
To Montreal.....	1.50
Add 10 per cent. to above rates on B1 vessels.	

Items from Abroad.

Steenberg, Swan & Co., corn merchants at Newcastle, England, have failed. The liabilities are £50,000.

Joseph Pollard & Co., grain merchants of Newcastle-on-Tyne, England, have failed. Liabilities, \$400,000.

Suse & Sibeth, grain merchants at London, England, failed recently. Their liabilities amounted to \$1,250,000.

The very first French grain elevator has recently been put up at Bordeaux, France. We understand that it is but the first of a series.

Some 36,000 bushels of wheat have been shipped to Liverpool from Egypt. The yield of wheat in Egypt this year is twenty per cent. more than the average crop.

The yield of the harvest in Austro-Hungary for 1883 will fall thirty-five per cent. behind that of last season. This is not unfavorable, however, as that of 1882 was the richest known in twenty years.

A French correspondent of *Le Genie Civil* declares that while a French vessel is unloaded slowly by relays of men, the bags during the tedious process being, perhaps, covered with old canvas, the wheat must suffer injury; whereas the American vessel engages the aid of excellent machinery, and the grain during the entire operation remains perfectly dry and cool. The difference is enough to enable the American producer to undersell the French wheatgrower in his own markets.

The Exchange of Antwerp is one of the curiosities of Europe, not only because of its extent, but of its deliciously sensible method of doing business. They are not the howling, yelling masses that make up the New York, Chicago, Toledo or Milwaukee Boards of Trade. The Antwerp Exchange is not an aggregation of lunatics, but is made up of quiet, level-headed merchants, who are not gamblers, but who have something to sell or something to buy. It is a vast hall, covered with glass, with maps of the coasts of the world painted upon the walls. There are no seats on the floor—everybody stands. As the hands of the clock approach the hour of 11, the vast space begins to fill with eager-eyed, shrewd looking men, each going straight to some particular spot on the great floor. The whole space is mapped off, one locality being reserved for the dealers in petroleum, another for those who buy or sell only American flour. In brief, each, no matter what its country, has its space, and the dealers all get together, each in his corner. The buying and selling is done by individuals, and not by the wild bidding system that is in vogue in America. Mr. Brand, who represents the firm of Antwerp & Co., Chicago, has so many tiers of ham, we will say, which he is authorized to sell at a price, and his business is to find a customer. He offers it to those in the trade, and they take it or let it alone according to their judgment of the market. Telegrams fly on the wings of lightning to every country on the globe, answers being delivered to the senders on the floor. * * * And bear in mind the trading done in Antwerp is not in opinions—it is not the betting that prevails in America as to future prices, where settlements are made on the result of the venture, and where actual goods never pass. Every transaction here means that the buyer actually buys and pays for whatever he buys, and that it is bought and sold because the seller has it and wants to sell it, and the buyer has it not, but wants it. The Antwerp merchant is a merchant—not a gambler. Every language on earth is spoken in this vast bazaar. French, English, Flemish, German, Holland, and the language of the far East, all are heard. An Antwerp merchant talks to his customer in his own tongue, no matter what it may be. The Antwerp Exchange is the most cosmopolitan spot on earth. It is a polyglot institution.—*Nasby's Letter.*

Railway Intelligence.

The first week in October the East-bound railroads carried 27,805 tons of grain.

The Baltimore & Ohio Railroad has constructed a new elevator of 250,000 bushels capacity near Baltimore, Md., designed to accommodate the local trade in oats and rye.

The Winona, Alma & Northern R. R. Co. has filed articles of incorporation to build a railroad from Winona, Minn., northeast to Alma, Wis., and thence north to Menominee, about 70 miles in all.

An attempt has been made to induce the Railroad and Warehouse Commissioners of Illinois to rearrange the Illinois freight classification so as to make it conform with the joint Western classification now in use on all the roads west of Chicago. It is hardly probable that the Railroad and Warehouse Commissioners will agree to the desired change, as they seem to have made up their minds not to change the Illinois classification where such change would result in advancing the rates.

The Duluth Herald announces that the Duluth & North Shore R. R., organized six weeks ago, is backed by one of the strongest syndicates ever organized in England, and that it is the intention of the company to commence operations immediately—in fact, men are on their way from Liverpool to inaugurate the work of surveying. Three corps of the best civil engineers to be found in England have sailed from Liverpool and will arrive in Duluth about the last of the month, and it is the intention to start them out on the road about Oct. 1. The headquarters of the company will be in Duluth.

Says the Railway Review: "The Chicago Board of Trade men who were so clamorous for a state weigher, during the earlier periods of their disagreements with the railroads, appear now to have been insincere at that time. The department was duly organized and started in its work, but the board has refused its support, and consequently the state weighmaster has been compelled to resign. Without patronage he had nothing to do, and, what was probably more important to him, as the shippers would pay him no fees, he had no income. So the much talked-of state supervision of weighing comes to naught. Very likely the disgruntled Board of Trade men who suggested it never wanted it to succeed, but merely employed the idea as a means of annoying the railroads."

A spiteful exchange has the following in reference to the trouble between the Minneapolis millers and the railroads: "The present muddle with the Minneapolis millers is another case in point. The millers of that town really 'want the earth.' They demand favorable concessions in the matter of relative wheat and flour rates so that their industry may be protected, and this has been granted. They want, moreover, that everybody else's interests shall be ignored, and because this request is not granted, and because rates unjustly discriminative in their favor are withheld, they propose to make it warm for the railways. They threaten to build a railway of their own to an Eastern water connection, and doubtless will evolve other schemes to strengthen their demands."

The shares in the new East-bound freight pool, according to the award of Commissioner Fink, are as follows:

	NEW POOL.	OLD POOL.
Lake Shore.....	16½	21¼
Michigan Central.....	18¼	24¼
Fort Wayne.....	19¾	25½
Pan Handle.....	8	10
Baltimore & Ohio.....	7	8
Grand Trunk.....	11	11
Chicago & Atlantic.....	11	..
Nickel-Plate.....	8	..

Total..... 100 100

The 19 per cent. required to make up the allotments of the Chicago & Atlantic and Nickel-Plate were taken from the old roads as follows: Vanderbilt lines, 10¼; Pennsylvania, 7¾; Baltimore & Ohio, 1—total 19. The Grand Trunk and Chicago & Atlantic were placed on an even footing because of the equality of terminal connections and facilities for handling traffic.

It is stated that the recent large expenditures for the improvement of the South Pacific Coast Railroad and the construction of a new pile road two miles out into the bay have been prompted by a new corporation called the San Francisco & Colorado Railroad Company, with Villard, President of the Northern Pacific, at its head. It is also affirmed that he has bought the Northern Pacific Coast Railroad, running from San Francisco north along the coast to a point called Duncan's Mills, with the intention to continue it to a junction with his Oregon system. It is further stated that he has bought up the Santa Maria Valley Railroad, a short line running from Port Horford to Santa Barbara, and that he intends to build a connection to join the South Pacific Coast Road. With this accomplished he would have a continuous coast line from Puget Sound to within a short distance of San Diego, Southern California, a distance of about 1,500 miles.

In his annual report Mr. Nimmo, Chief of the Bureau of Statistics, will take up the subject of transcontinental transportation of wheat and other cereal products from the Pacific States by the three Pacific railroads. Mr. Nimmo says that there are now upward of five hundred vessels engaged in the California wheat-carrying trade, and that this traffic is the most profitable in which the merchant marine of the world can engage. In his opinion a large percentage of this traffic ought to be secured by the railroads. He has obtained and will publish a mass of evidence bearing upon the practicability of competition by the railroads with the vessels, together with the views of interested persons of the three trans-

continental routes now completed. Mr. Nimmo is of the opinion that the Southern Pacific offers the greatest advantages for freight transportation from the California wheat-growing territory, because the distance to be traversed by rail before reaching tidewater is less by this route than by either of the others, Galveston or New Orleans offering excellent facilities for shipping cargoes. The Northern Pacific, on the other hand, offers excellent facilities as an outlet for the surplus production of Oregon and the northern boundary wheat belt to Duluth, where the lakes and the Erie or Welland Canal furnish water transportation to the seaboard, thus materially reducing the cost of carriage. The Union Pacific route, although it has been completed several years, has never enjoyed any considerable share of this traffic—only 450 car loads having been carried over the road—and Mr. Nimmo does not think that it will become a favorite route, at least for the present, because it does not offer the advantages of water transportation part way to the seaboard that others do, and it is well known that freight rates by water are from one-third to one-half less than by rail.

RUST IN WHEAT.

Rust is one of the most formidable enemies the grain farmer has in wet, muggy seasons such as the present. Warmth and moisture favor its development. In seasons alike in their heat, rainfall, and humidity, the rust is not equally damaging. It breaks out in what appears a capricious manner. A drenching rain is sometimes followed by less rust than that which appears after a slight shower or even a heavy dew. There are antecedent conditions which largely determine the degree of liability to rust. The microscopic spores of the fungus known as rust float about in the air awaiting favorable opportunities for development, and when they meet circumstances of the proper kind they multiply with astonishing rapidity. During moist, hot weather, the sap vessels of the plants become ruptured, and fungoid germs attach themselves readily. If the plants, some scientists think, are healthy and vigorous, they resist the attempt of the parasite to establish itself, much as healthy animals refuse to become the abode of parasites which thrive on their weaker fellows. Anything, therefore, which weakens the vitality of the wheat plant renders it liable to become the prey of rust. Exhaustion of food elements in the soil, the presence about the roots of sour, stagnant water, sowing too late in the fall for proper development to resist the winter, are among common and easily preventable causes that predispose to rust. Of non-preventable causes hard winters and cold, backward springs which prevent the healthy development of the wheat plant, are among the most prominent, next, of course, to warmth and moisture. These conditions have existed this year, as they did in 1876, when the damage from rust was widespread and very serious. Fortunately, midge and weevil are not among the pests of the present summer, as they were in that unfortunate season. "What cannot be cured must be endured," but the causes which can be reached should not be suffered to exist. Good farming in the broadest sense of the term, which includes proper selection of lands for different crops, proper preparation of the soil, and proper culture, is the best preventive of serious damage from rust.

Special Notices.

The Chicago Scale Co. sell Scales of all kinds also Portable Forges and Blacksmiths' Tools of all descriptions at about one-half usual prices. Buyers will save money by sending for their Price List.

Elevator Men—Howes, Babcock & Ewell, of Silver Creek, N. Y., make a full line of wheat cleaning machinery. Read their advertisement on first cover page.

For Sale Cheap—Trimmer Scourer and an Oat Separator. Address A. M., care AMERICAN ELEVATOR AND GRAIN TRADE.

For Sale.

FOR SALE.

A very desirable grain and stock business in Sac County, Iowa. Satisfactory business for past years shown and ample reasons for selling. Address

IOWA ELEVATOR,
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ELEVATOR FOR SALE.

On St. P., M. & M. R. R. in Pelican Rapids, Ottertail Co., Minn., 18,000 bushels capacity. Elevator built last summer. Engine and complete apparatus. Buys No. 1 hard wheat only; patronage good. Price, \$1,900; a very great sacrifice. Cause of selling is ill health. An extraordinary chance for person with small capital. Will also sell residence. For particulars address

L. W. GRAY, Box 167, Pelican Rapids, Minn.

THE ROUND ELEVATOR.

Editor American Elevator and Grain Trade:—We have several Circular Elevators of the Williams & Barnett Patent in operation, of which there was a notice in your AMERICAN ELEVATOR AND GRAIN TRADE a short time since, and it may interest some parties to know how we are pleased with the same. In the fall of 1881 we built our first two elevators on the Pacific Division of the Minneapolis & St. Louis Railway, one square and one round house. In the fall of 1892 we built two others, and this fall (1893) two more round houses, as we preferred them. The capacity of our circular elevators is 25,000 and 40,000 bushels, and we are well pleased with the buildings. They stand up, like an egg on end, and are neat, strong and convenient. We shall probably build some more another season.

Yours truly,

PACIFIC ELEVATOR COMPANY.

Henderson, Minn.

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Liberal Advances Made on Consignments.

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Careful attention given to Filling Option Orders.

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Extra Facilities for furnishing Coarse Grain in large lots.

Prompt Attention given to any business intrusted to our care.

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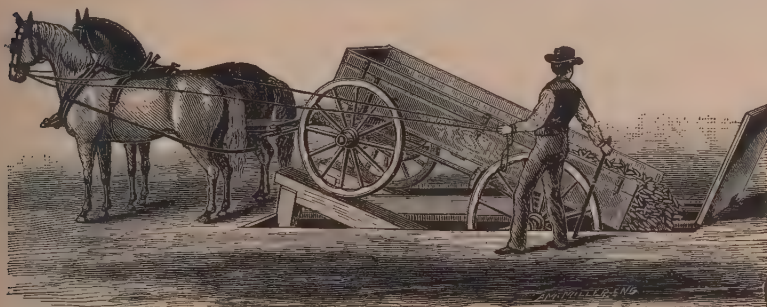
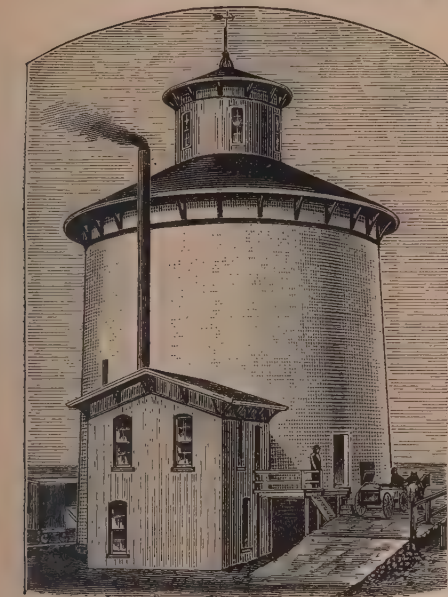
More than FIFTY in Successful Operation in the Northwest.

We can refer intending Builders to any and all of them.

The Most Storage for the Least Money,

And the

Handiest to Operate.



The above cut is a fair representation of the Rail Dump in common use, on which we are collecting a royalty for past use, and licensing parties to continue to use and also put in New Dumps. Our patents on Rail Dumps fully cover this class of Dumps. Any one using Rail Dumps can readily decide by comparing his Dump with this cut, whether he infringes or not. We also control patents that cover Platform Dumps. Our prices are reasonable in settlements for past infringements, and for licenses to continue to use the Dumps. Prices given on application. See notice below.

NOTICE.

To Parties Using Grain Dumps.

Notice is hereby given that we have been retained to prosecute infringers of the following Letters Patent on Grain Dumps:

One granted to Noah Swickard, Oct. 13, 1868, No. 88,005. Reissued Dec. 20, 1870, No. 4,212, for Improvement in Wagon and Car Unloading Apparatus.

One granted to Samuel C. Kenaga, Oct. 20, 1868, No. 83,288, for Improved Dumping Platform.

One granted to Benjamin Walton, Nov. 31, 1869, No. 97,252, for Improved Dumping Machine, and

One granted to Wm. M. Hall, Sept. 6, 1870, No. 107,040, for improvement in Grain Dumps, and all persons or parties manufacturing or using Grain Dumps which infringe on any of the above described Patents must make settlement for all past infringements, and take license in accordance with the usual terms, if they desire to continue to manufacture or use the same, or legal steps will be taken to enforce said Patents against all infringers.

Applications for licenses for using said patented improvements, and for settlement for past infringements should be addressed to

J. M. HARPER, New Opera House Building, Peoria, Ill.

BURNET & BURNET,

Complainant's Counsel, Cincinnati, Ohio.

Kerr Murray Mfg. Co.,

Ft. Wayne, Ind.

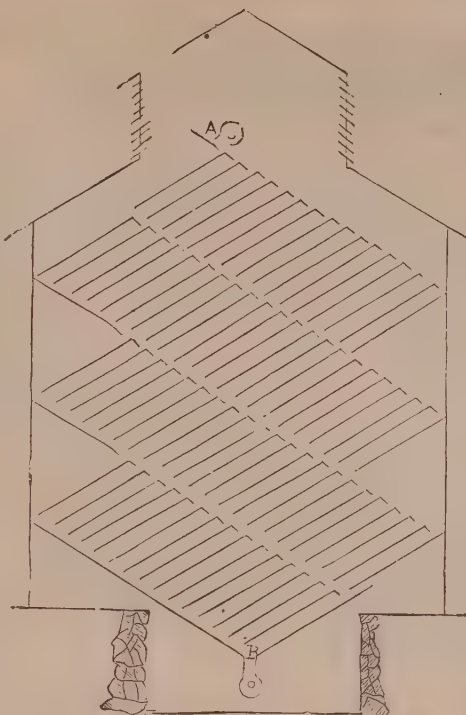
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Wrought Iron Tanks and Cast Boats Complete. Steam Engines and Boilers, Shafting, Pulleys, Etc.

IMPROVED STEAM SHOVEL MACHINERY.

ESTIMATES FURNISHED ON APPLICATION.



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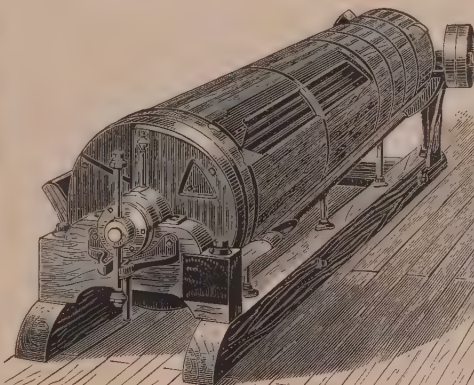
Constructed with wire cloth or perforated metal, are superior to all other appliances for drying by hot air. The grain moves over them by gravity. The grain lays loosely on inclined shelves, the hot air going through the grain where it is only a few inches deep. In all respects it is superior to the wire cloth partition, where grain is pressed hard together in a high perpendicular column with wire cloth on both sides. We furnish Models for these Shelves, with the right to use, for \$75. Any carpenter, with ordinary lumber and a small quantity of perforated iron, can erect a Dryer from this Model.

CUTLER'S STEAM DRYER,

Using super-heated steam at 500 Fahrenheit, thereby nearly doubling its capacity, is the cheapest Grain Dryer in the world. These Dryers have been in use 14 years, and may be found doing good work in almost every state in the Union.

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Elevator Bucket.



Runs Easy;
STRONG AND
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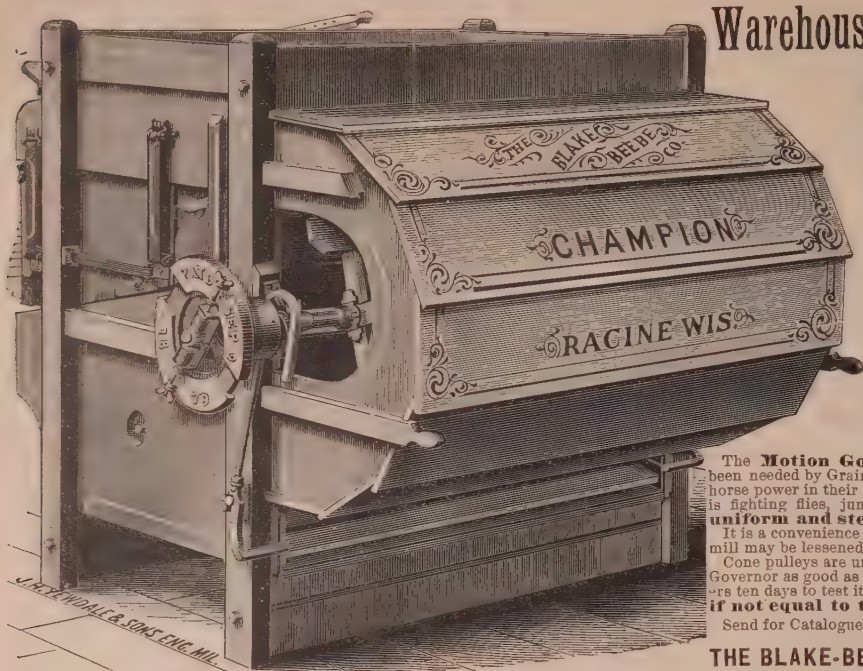
New York Office and Salesroom, No. 9 Cliff St.

STEAM GRAIN DRYER.

A description of operation of W. H. Applegate's new invention for handling and drying new and damaged grain. PATENT ALLOWED AUG. 15, 1888.

This grain dryer can be adapted to a very large business or a small one; it can be built to dry thoroughly from 50 to 2,000 bushels per hour of new corn, wheat, oats, barley or rye, and one-third more of partly dried grain, and put them in as good condition as if they had gone through the sweating process naturally, leaving the color perfectly natural. New corn can be dried in one-half hour and left in as perfect condition as if it had lain in good cribs for six months. The grain passes down through the dryer and through between two wire cloth screens in a thin sheet, of its own weight, very slowly, and is discharged by a discharge-valve, under the control of the man operating it, and it can be set to hold the grain 10, 20 or 30 minutes, or till it is thoroughly dried. New, undried grain is received into the top of dryer as fast as the dried grain is taken out of the bottom, keeping the dryer constantly full at all times. The dryer is cased in a brick wall and heated to 350 deg. by steam pipes, which do not come in contact with the grain. The dampness is taken off at top. This dryer is very simple and easily built, each bushel of grain is spread out in 30 square feet, 5/8 of an inch thick, and it will be warranted to do all that is here recommended to do or no pay, and will cost in proportion to its size, as it is impossible to do something with nothing, but this dryer will cost one-third less than any other dryer ever built, of same capacity.

I am making arrangements to have these Dryers manufactured in Chicago, and will have four or five good sized Dryers in actual operation on this present crop of new corn in some of the large grain points. They have been tested by wetting old corn and then drying it out again, and worked very satisfactory. The wire cloth of proper size and width is not kept in stock and will have to be manufactured to order, consequently can not have but few in use this fall. For further information, address W. H. APPLGATE, Patentee, Atlantic, Iowa.



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Cut of No. 6 Mill with Motion Governor.

CAPACITY,

600 BUSHELS
PER HOUR.

WE MAKE

Seven Different Sizes

FOR

Warehouses
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The Motion Governor is something that has long been needed by Grain men, particularly by those who use horse power in their elevators, for it matters not if the horse is fighting flies, jumps or runs, this Governor preserves a uniform and steady speed.

It is a convenience with steam power, as the speed of the mill may be lessened or accelerated by it in a moment.

Cone pulleys are unnecessary with it. We guarantee this Governor as good as represented, and we will allow purchasers ten days to test it, with the privilege of returning if not equal to the guarantee.

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THE BLAKE-BEEBE CO., - RACINE, WIS.

The Everlasting Elevator Bucket Co.,



Manufactures three of the best elevator buckets on the market. The "Everlasting" is round faced, no corners to catch; superior carrying and emptying capacity, with patent malleable iron lip. Outwears any bucket in the market. The "Boss" has an oval front and square bottom. Light, strong, and durable; lip can be attached if desired. The "Keystone" is as near perfect as a square cup can be. The corners are rounded, with double bottom, and substantially made. Prices as low as ordinary buckets. Best of testimonials. Sold to mill furnishers generally. Order from your furnishers or of us direct. They pack closely. Elevator Bolts at manufacturers' prices.

The Everlasting Elevator Bucket Co.,

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PRINTING of Every Description.

Catalogues a Specialty.

First-Class Work Guaranteed.

Everything New.

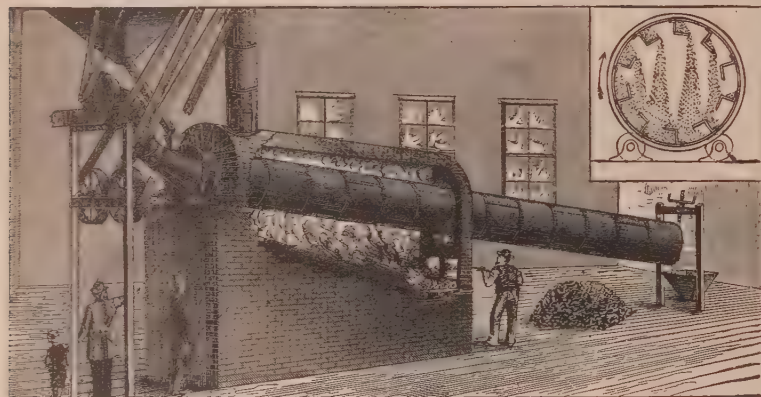
Estimates Furnished on Application.

R. Buckingham & Co.,

150 Dearborn St., Chicago.

Room 42.

S. E. WORRELL'S COMBINED DRIER AND COOLER!



FOR DAMP AND MUSTY GRAIN, ETC.

Read the following strong letters of recommendation: [The italics are justas they appear in the Original.]

BALTIMORE, MD., February 16, 1883.

S. E. WORRELL, Esq., Hannibal, Mo.:

DEAR SIR:—We are pleased to state that the No. 2 Drier we recently constructed and erected from your plans and drawings, for one of the largest of our elevator firms, is doing admirable service. It is drying and cooling from 50 to 60 bushels of corn per hour—some of it in a very bad condition. We have had ample means of comparison, as at the same mills and elevator they have one of the best Steam Driers, and an Oven Shelf Drier or Kiln. They find that yours does more work and better work than either. Though previously suspicious of the new-comer, they pronounce it the best.

We unhesitatingly recommend it as the most perfect Machine for the purpose, of which we have any knowledge.

Very respectfully,

ZELL & DANEKER,
Baltimore Engineering Agency.OFFICE OF HANNIBAL MILLING CO.,
HANNIBAL, MO., June 5, 1883.

TO WHOM IT MAY CONCERN:

The bearer, Mr. Worrell, is the inventor of a Grain Drier, one of which is situated on lot adjoining our property, and we have had large opportunities of witnessing its work. It thoroughly cleans and dries the grain, and we have had some wheat dried for ourselves, which was quite satisfactory to us. We saw Mr. Worrell dry a lot of damp, musty hominy, and when done it was dry, hard, and the smell of must had disappeared. We consider the machine a valuable one.

Respectfully,

HANNIBAL MILLING CO.

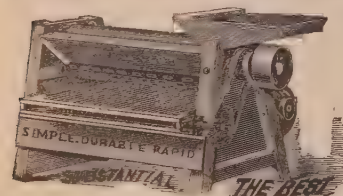
This machine is a practical Drier, in successful operation, and can be constructed in any good machine shop at a good profit. The undersigned would like to correspond with some responsible manufacturer who will take an interest in the U. S. and Canadian Patent, and make and push the sale of the machines, about which I am having numerous inquiries. Will give it my time if required. As this is the season for the sale of Driers, parties should write at once. Machines for sale at a reduction on former price by

S. E. WORRELL, Hannibal, Mo.

GLADIATOR CORN SHELLER AND CLEANER.

THOUSANDS IN USE.

PORTABLE CORN AND FEED MILLS,



SHAFTING, PULLEYS,
GEARING, ELEVATORS,
BELTING AND CUPS.

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Catalogues of Feed Mills, Wind Mills, Pumps,
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CONTRACTORS AND BUILDERS,

Attention is Called to the Superior Qualities of

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—AND—

ELEVATOR MACHINERY

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173 & 174 Lake St., Painesville, Ohio.

We Refer to the GRAIN TRADE of the NORTHWEST.

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Boiler Cleaning Company's Compound

Specially adapted for Waters containing Mineral Precipitants.

Sold in Barrel and Half-Barrel Packages, ON APPROBATION, at \$1.00 per gallon. F. O. B. Guaranteed to act in all cases, and to be free from any ingredients injurious to iron. Treatise on Boilers and Steam matters, with references and circulars, free on application. Recipe with Shop Rights, with second order. Address

BEN E. HARRIS, Sec'y,

No. 72 West 3d St., CINCINNATI, OHIO.

WHAT WE CLAIM FOR OUR DRIER.

That it is the Drier for large dealers and elevators.

That its capacity is from 1,000 to 50,000 bushels, according to the size built.

That it is the cheapest in the market for its capacity and durability.

That it can be used without heat, but would advise a temperature of 100 degrees Fahr.; more is liable to injure the grain.

That one man can operate it.

That the machine, as drawn in patent, of four feeds on a series, and 20 series high, requiring a space in a building of 6x8 feet, 30 feet high, with the use of two Root's Blowers, one No. 5 for hot air and one No. 1 for cold air, with the hot air 100 degrees, will absorb and carry off 1,000 pounds of water per hour.

That the operator has perfect control of feed, heat and blast, and can dry the grain to any degree desired, and need not take out more water than is necessary to make it grade.

That the feeds are force feeds, and will supply an even and regular stream of grain, from one-eighth to one inch thick, the length of feed.

We also claim that by the use of cold air in finishing grain it can be placed in bulk without injury as it comes from the Drier.

We do not propose to sell the right to use the Drier, but desire to negotiate with one party or firm, in each grain depot where it will pay to use a Drier of large capacity, to form a company to operate in this class of grain, and we will put the right to use our Drier in same for an agreed share of the profits; or we will let it be built on a royalty, but in no case will there be two companies formed in the same place. Any one desiring to see the principle and working of the Drier can get a copy of the patent by sending twenty-five cents to the Patent Office, naming the date of issue (July 24, 1883), and number of patent (282,013), or to J. C. Slaughter, Chestertown, Md.

When small driers are needed, one blower can be used for cold and hot air by using the blower as an exhaust. We are prepared to furnish castings, etc., for driers at short notice.

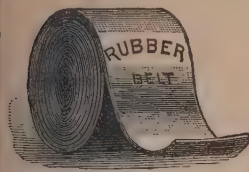
Address J. C. SLAUGHTER, Chestertown, Md.,

OR

HARRY B. SLAUGHTER, 505 Delaware St., Kansas City, Mo.

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The Oldest and Largest Manufacturers in the United States of
VULCANIZED RUBBER
 In every Form, adapted to MECHANICAL PURPOSES.



Machine Belting
 WITH
 Smooth Metallic Rubber Surface.

This Company has manufactured the largest Belts made in the world for the Principal Elevators at Chicago, Buffalo and New York.

Steam and Water Hose,
 PLAIN AND RUBBER LINED.

RUBBER "TEST" HOSE, made of Vulcanized Para Rubber and Carbolized Duck; Cotton "CABLE" HOSE, Circular, Woven, Seamless, Antiseptic, for the use of Steam and Hand Fire Engines, Force Pumps, Mills, Factories, Steamers, and Brewers' use.



CAR SPRINGS
 OF A
 Superior Quality,
 And of all the various Sizes used.

Original Solid VULCANITE EMERY WHEELS.

Large Wheels made on Cast-Iron Centre if desired.

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Elastic Rubber Back Square Packing.

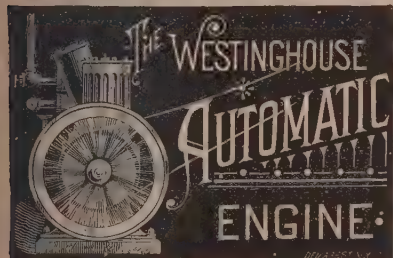
BEST IN THE WORLD for Packing the Piston Rods and Valve Stems of Steam Engines and Pumps.



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 For Halls, Flooring, Stone and Iron Stairways, etc.

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30 to 300 Horse Power.

Send for Illustrated Circular and Reference List.

State the Horse Power Required and Ask OUR PRICES!

Especially adapted to Roller Mills and to Direct Connection to Shafting and Machinery.

THE WESTINGHOUSE MACHINE CO.,
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 401 Elm St., Dallas, Tex.

THE California Scourer and Separator
 COMBINED
 FOR ELEVATORS.

FOX LAKE, WIS., Jan. 12, 1882.
 M. DEAL & Co., Manufacturers California Grain Cleaning Machinery, Bucyrus, Ohio:
 Your California Scourer and Separator pleases us. It is first-class. It does its work well. It is the best machine to Scour and Clean Barley we have ever seen. Our engine is 10-horse power and will easily run two machines like it, Fanning Mill and Elevator. We would recommend it for Warehouse purposes ahead of all other machines.
 MYERS & BICKELLAUPT.

Send for Illustrated Catalogue and Price List. IT WILL PAY YOU!

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Superior to all Others for SERVICE and ECONOMY.

Twice as Strong as Leather.
 Any Length.

Send for Reduced List and Discounts. Over 2,000,000 feet sold during 1881.

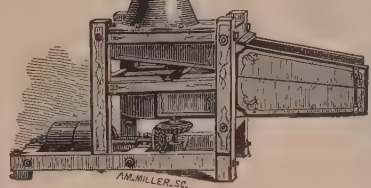
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 Indianapolis, Ind.

MONITOR CORN SHELLER!

PAT. AUG. 20, 1872.

CAPACITY,
 800 to 1,000 bu.

In 10 Hours.
 Speed, 500 to 600 revolutions per minute.



Superior to all other shellers in simplicity, durability, and effectiveness in working. Runs with less power than any other sheller of equal capacity. Cleans the corn from the chaff, shells without breaking the cob, and will work with damp corn as well as dry. Can be adjusted to different size of corn ears without stopping the machine. Two styles made, geared, and not geared. Write for circulars and particulars.

SELLEW & POPPLE, - DUNKIRK, N. Y.
 Manufacturers of Standard and Automatic Cut-Off Engines, Boilers and General Machinery.

PAYNE'S 10-Horse Spark-Arresting

Portable Engine has cut 10,000 ft. of Michigan Pine Boards in ten hours, burning slabs from the saw in eight foot lengths.



OUR 10-HORSE we Guarantee to furnish power to saw 8,000 feet of Hemlock boards in ten hours. OUR 15-HORSE will cut 10,000 ft. in same time.

Our Engines are GUARANTEED to furnish a horse-power on 1/4 less fuel and water than any other Engine not fitted with an automatic cut-off. If you want a Stationary or Portable Engine, Boiler, Circular Saw Mill, Shafting or Pulleys, either cast or Medart's Patent Wrought Iron Pulley, send for our ILLUSTRATED CATALOGUE, "No. 34," for Information and Prices.

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We will send any of the following named Books, postage free, on receipt of annexed prices:

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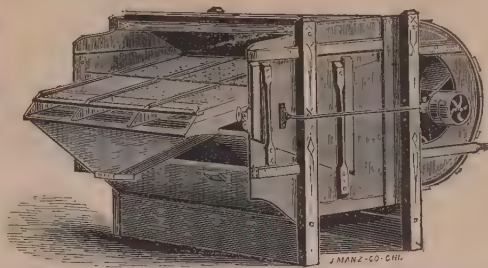
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Dickey & Pease

RACINE, WIS.,
 Manufacturers of the celebrated
 A. P. DICKEY

Farm, Warehouse & Elevator

Fanning Mills
 and SEPARATORS.

Both SINGLE and DOUBLE and with either "SIDE SHAKE" or "END SHAKE." Made in FIFTEEN SIZES. Mills of any capacity, from 60 to 600 bushels per hour.

The above cut shows our single "End Shake" Warehouse and Elevator mill. Made in three sizes. Capacity from 400 to 600 bushels per hour. No other mill like or equal to it in the world.

These mills are GUARANTEED TO BE SUPERIOR IN ALL RESPECTS TO ANY OTHER MANUFACTURED IN AMERICA. Prices made right. For catalogues and price list, address

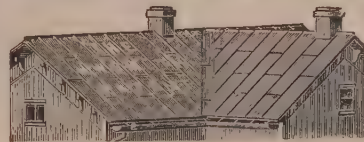
DICKEY & PEASE, Manufacturers, Racine, Wis.

SPIRAL RIVETED GALVANIZED AND BLACK PIPE,



Suitable for use as Water Pipe, Exhaust Steam and Blow-off Pipe, Pump Suctions and Columns, Compressed Air and Refrigerating Pipes. From 3 to 24 in. diameter, and from No. 14 to 20, Wire Gauge, according to diameter. Largely used by Paper Manufacturers for Pulp.

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IRON ROOFING.

Cheapest and Best Plan in Use. Preferable to Corrugated. Suitable for Buildings of all kinds. Also Calamine Iron (best thing for Gutters), and Iron Ore Paint, Manufactured by

T. C. Snyder & Co.,
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Send for Circular and Price List. Sample Free.

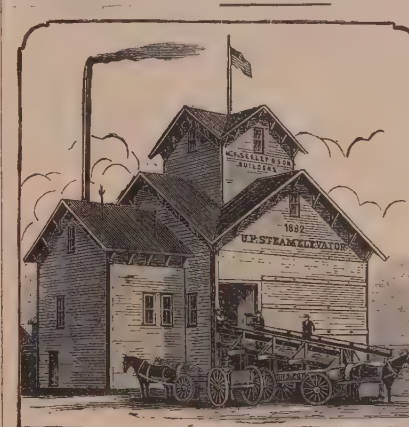
THE WESTERN GRAIN DUMP CO.,

Until Nov. 15 next, will make the following special rate for Right to use the
HINMAN DUMP,

Viz.:—\$20 for first, \$15 for second, \$10 for third, and \$5 for each additional Dump. This rate is made at the earnest request of our patrons through the Northwest. For price of fixtures, and further information, address

WESTERN GRAIN DUMP COMPANY,
 Two or three efficient Agents wanted for the Northwest. **Lincoln, Ill.**

M. F. SEELEY J. S. SEELEY. E. E. HANKS. C. R. DELAMATYR.



SEELEY, SON & CO.,
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Elevator Builders.

We build a "SEELEY" ELEVATOR that stands at the head of Elevators as a self-binder stands at the head of reapers. We furnish

Plans, Specifications and Estimates

Also furnish all kinds of

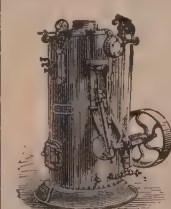
MACHINERY.

Engines, Cleaners, Corn Shellers, Belts and Buckets, Etc., Etc.

With our experience we can save you on these items more than cost of Plans. Correspond with us and save costly mistakes.

BOOKWALTER ENGINE!

Effective, Simple, Durable and Cheap.



full power claimed.

3 1/2 H. Power, \$240 4 1/2 H. Power, \$280
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Fine new illustrated catalogue sent on application.
JAMES LEFFEL & CO.,
 5 Lagonda Ave., Springfield, Ohio.

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HOWE'S CHALLENGE SAMPLE MAIL ENVELOPE

Will be found the most complete Package for Samples of Grain, Flour, Seeds, etc., on the market. Unlike any other sample envelope, The Loop or Fastening is attached to Envelope, and cannot become lost, broken or bent out of shape, and therefore is always ready for use when desired.

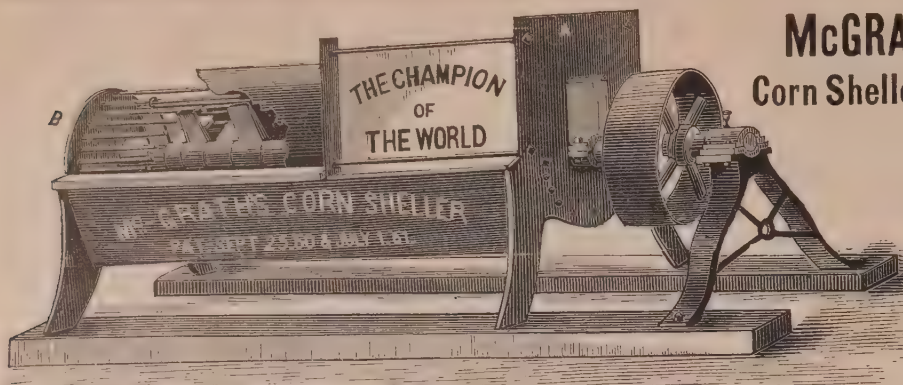
Is easily filled and closed, and is absolutely secure when closed. There are no hooks, points or loose ends to engage other mail matter.

Send postal card for Sample and Price List, and address

HOWE PATTERN & MFG. CO.,
 445 Baggs St., Detroit, Mich.

[Please mention this paper.]

McGRATH & CO.'S Corn Sheller and Corn Cleaner



WORKS.

Manufacturers of
McGrath's Hornet

AND
McGrath's Twin Corn
Sheller and Cleaner.
McGrath's "Champion
of the World."
McGrath's Pat. Grain
Dump. Also Shafting,
Pulleys, Hangers and
Warehouse Machinery
of every description.

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136 & 138 S. Third St.,
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J. D. LESLIE,
OF LINCOLN, ILL.,

Has on Sale, neatly bound in separate Books,

Lists of 9,368 Millers

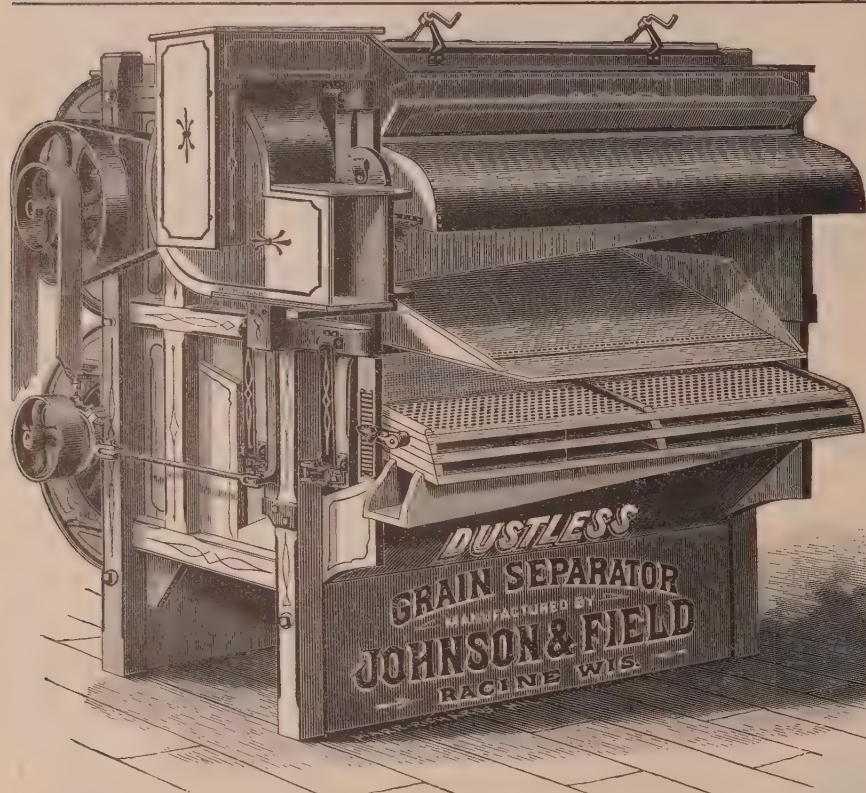
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5,693 Grain Merchants.

In 14 Principal States.

States and Towns arranged alphabetically. Price
reduced to \$3.00 for first named, and \$2.00 for
second, or \$4.00 for both.
They will be sent on inspection before remit-
tance is made, to be returned if not satisfactory.

JOHNSON & FIELD'S DUSTLESS GRAIN SEPARATORS



Our aim has been to construct a machine that would do superior work, clean fast, run easy, and to remove all dust and foul stuff without wasting any grain or seed; also in making it strong and durable in every respect.

The accompanying cut shows our Dustless Separator. For these machines we make the following claims:

FIRST. Their Superiority in Separation: They have two distinct combinations or sieves and screens to which blast is applied, which performs the same work in one operation that is usually done in running through twice.

SECOND. Their Light Running: They can be run by horse power as well as by steam. One horse power can run them besides elevating the grain.

THIRD. Their Large Cleaning Capacity: In constructing these machines the capacity has been greatly increased, so that they will clean much faster than any single machine of equal size.

FOURTH. The Effectiveness of Removing Dust and Chaff: By combining the Dustless Fan with these machines all dust and chaff can be taken out and carried through spouts to outside of building or into a dust-box, thereby obviating the great objection and nuisance of having the house filled with dust, and the discomfort and injurious effect on men working therein.

FIFTH. Their Great Strength and Durability: In making these machines it has been one of the chief objects to make them as strong and durable as can be done by skilled labor and the best of materials, the frame work being very heavy, made out of thoroughly seasoned white ash. The irons are extra heavy, and all fastened on with bolts, with shafts of one and one-half inch in diameter, Bab-bitted Boxes, large, solid Eccentrics, with heavy Connecting Rods; and Brass Oil Cups on all Bearings. Also the Hopper, Feed and Grain Boards are covered with Heavy Sheet Iron, preventing the grain from wearing through same.

Although these machines have been only a short time in the market, they have met with universal approval, and the increased demands speak well for their merits. For Circulars, Prices, etc., address

JOHNSON & FIELD, Racine, Wis.

CHAS. KAESTNER & CO.,

Established 1863.

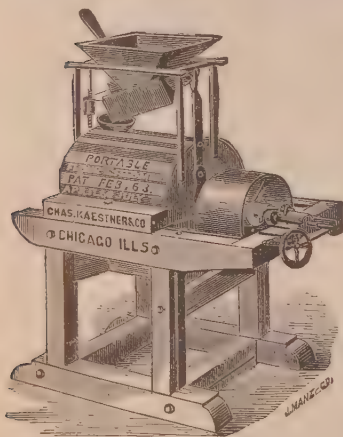
General Machinery.

SHAFTING,
PULLEYS,
HANGERS and
GEARING
A SPECIALTY.

Over 4,500 of our Mills in Use.
Sold under a full guarantee to give entire
satisfaction, or money refunded.
Parties erecting Elevators will consult
their own interests by sending for our Il-
lustrated Catalogue and references.

—OFFICE AND WORKS,—

303 to 311 So. Canal St., } CHICAGO.
74 to 98 Harrison St., }



TO THE GRAIN DEALERS OF THE UNITED STATES:

I am informed that one JAMES M. HARPER, of Peoria, Illinois, formerly of El Paso, Ill., is representing that he has the control of all the Grain Dump patents issued, and is endeavoring to collect royalty of all men using what is known as the rail dump, which consists of a pivoted track for dumping grain.

This is to notify you that I have the first pivot track or rail dump patent issued by the United States, and that a suit is now pending in the United States Court at Indianapolis, entitled "Swickard et al. vs. McGrath et al.," and also a suit is pending in the United States Court at Chicago, Ill., entitled "Swickard et al. vs. Risser et al.," which suits will fully settle the question as to who has the true patent to pivot track or rail dumps.

Mr. Harper controls no pivot track or rail dump patent. His Swickard patent describes itself to be a platform dump. The cut he publishes in the *Elevator and Grain Trade*, does not represent his dump, but represents ours. Why does he not publish a picture of his own dump? He boasts of his suit against me. "He laughs best who laughs last." Let him wait until the court decides. The court has not granted even a temporary injunction against me. He seems to think because his patent is the oldest that that settles it. Unfortunately for him the courts do not so hold.

If I win my case, as my attorneys are confident I will, then all these royalties on the pivot track dump are due to me. I do not publish this as a boast or a threat, but only to say that the only safe way for grain men to do, is to await the trial of the above suits, which will be in a short time now, and thereby avoid double payment.

He further threatens grain men by saying that "suits will be vigorously prosecuted." Why then has he permitted his suit at Chicago against the Risserers to drag, and abandon, without settlement, a field of several hundred dumps, and go to new fields with threats of prosecution. If he has faith in his claim, let him establish it in the Risser case, and that will obviate a campaign on the part of traveling men of boasts and threats.

R. M. McGRATH,

Proprietor of Patent 115,769, dated from June 6, 1871.

For further Particulars Address

HON. A. J. BELL,

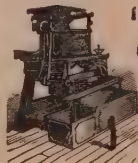
ATTORNEY AT LAW,

Grand Opera House, - - - Peoria, Ill.

REMOVAL!

PHILIP BUEHNER

DEALER IN
ENGINES AND BOILERS,
HAS REMOVED TO
Fourth and Wacouta Streets,
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"MOORE COUNTY GRIT"

Corn-Mills and Millstones,
ALL SIZES.

THE BEST IN THE WORLD
FOR TABLE MEAL!

Samples of Meal Sent on Application.
NORTH CAROLINA MILLSTONE CO.
Chambersburg, Pa.
(Please Mention this Paper.)

HERSEY'S PATENT STEAM GRAIN DRYER,

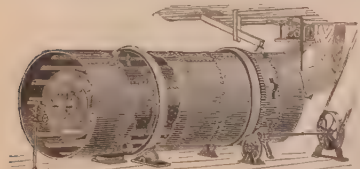
The Most Successful Dryer in Use.

Over 200 in Operation: This Dryer
has been in Operation 12 Years:

Will Dry Grains of every description, and in every condition, whether slightly damp or very wet, cheaper and in larger quantities than any other System. Does not injure the grain, and can be used as a Cooler and Duster, also as a Heater for Flour Mills. Is the only Dryer in the country upon Sugar, is extensively used for Drying Salt, Grape Sugar, Sugar Feed, Corn Refuse, Fertilizer, etc. Takes but very little power and steam, no labor, simple, no repairs, no wood work, and permitted by insurance companies to be operated without additional insurance. Can be arranged for using direct, exhaust or super-heated steam. We make them from four feet to six feet diameter; eighteen feet to thirty-five feet long.

Prices and Circulars upon Application:

HERSEY BROTHERS, - - - SOUTH BOSTON, MASS.



A GREAT SAVING IN THE RUNNING OF GRAIN ELEVATORS! THE LOTZ PATENT GRAIN SHOVELING MACHINE, FOR UNLOADING CARS.

PAT. NOVEMBER 23, 1880, AND DECEMBER 14, 1880.

This machine works automatic. The hoist rope spool of each machine is driven from a line shafting by paper friction wheels, and all the mechanical movements in the machine are such that they will not wear, nor get out of order. A GREAT SAVING IN REPAIRS OF SCOOPS, in the WEARING OF ROPES, in LUBRICATING MATERIAL, and in REPAIRS ON MACHINE. The resistance on taking the scoop back into the car is much less than with other automatic machines. The length of pull of hoist rope can be instantly adjusted. The more economical operation of this machine as compared with others will pay its first cost in five years.

Eleven double machines of above construction have been set up and are in practical operation in Rock Island Elevator A, near Twelfth Street Bridge, Chicago, Ill.

Mr. WM. H. LOTZ, CHICAGO:

DEAR SIR—We have been using your Patent Shovel Machines in Rock Island Elevator A for several months, and are well satisfied with them. We estimate a saving of 50 per cent. on shovels, 75 per cent. on rope, and 60 per cent. on oil over all the shovels previously used by us. Yours truly,

FLINT, ODELL & CO.

For further information address

HOWARD IRON WORKS, Buffalo, N. Y.,
Sole Mfrs for the United States.

WM. H. LOTZ, Mechanical Engineer
Metropolitan Block, Chicago.

HOWARD IRON WORKS, BUFFALO, N. Y. —MANUFACTURERS OF— MACHINERY FOR GRAIN ELEVATORS.

They Have Furnished the Machinery For

MUNGER, WHEELER & CO., AIR LINE ELEVATOR.....	CHICAGO, ILL.
VINCENT, NELSON & CO. ELEVATOR.....	" "
ARMOUR, DOLE & CO. C ELEVATOR.....	" "
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MUNGER, WHEELER & CO., ST. PAUL ELEVATOR.....	" "
WABASH ELEVATOR.....	" "
CHICAGO & WESTERN INDIANA RY CO. ELEVATOR.....	" "
N. Y. LAKE ERIE & WESTERN RY CO. ELEVATOR.....	BUFFALO, N. Y.
COMMERCIAL ELEVATOR.....	" "
WHEELER ELEVATOR.....	" "
UNION ELEVATOR.....	TOLEDO OHIO
JOLIET ELEVATOR.....	JOLIET, ILL.
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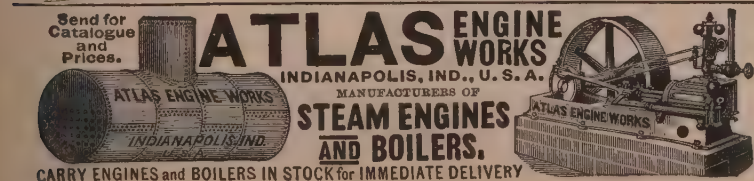
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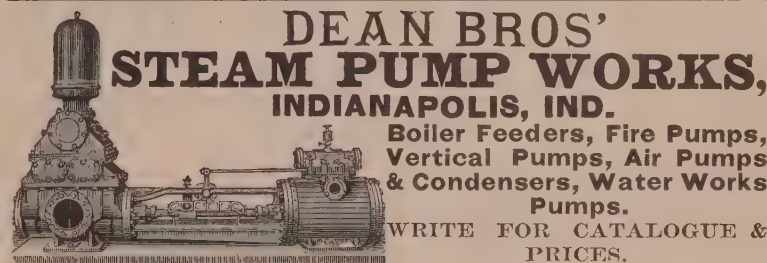
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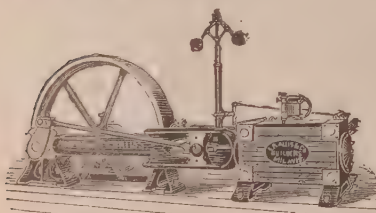
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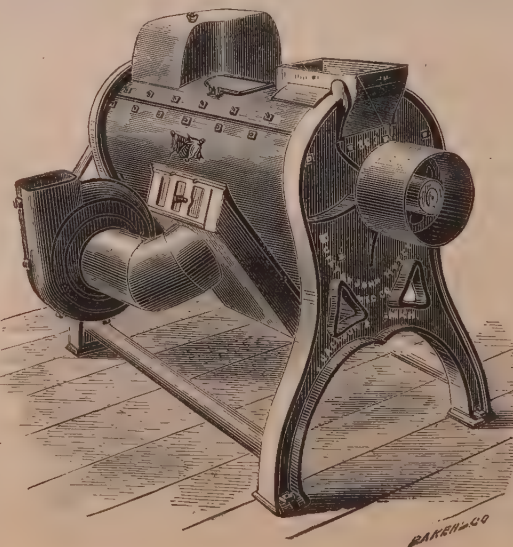
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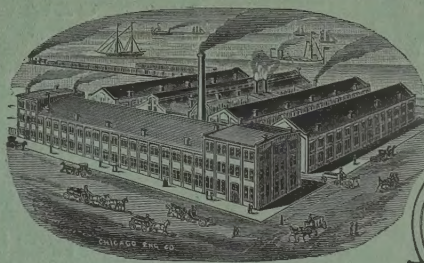


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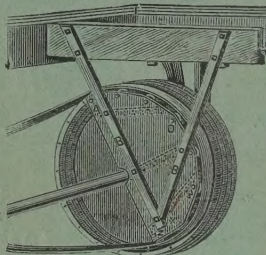
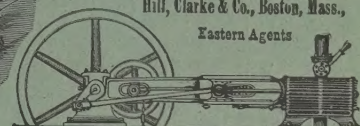
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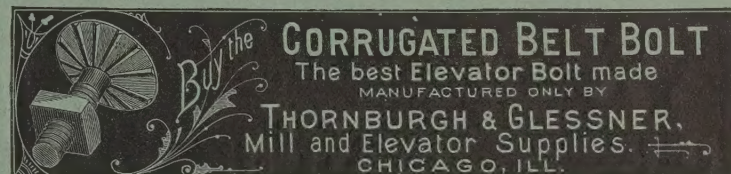
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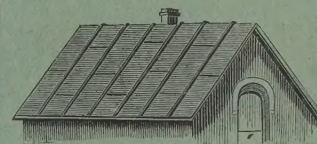
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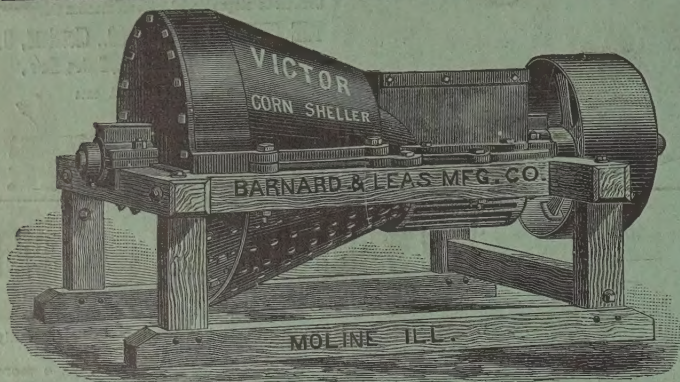
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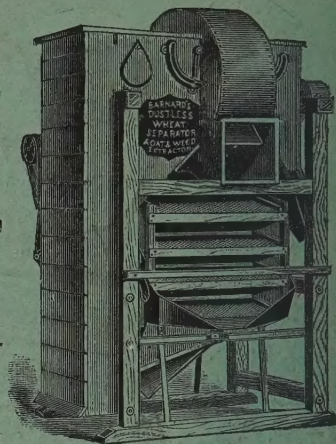
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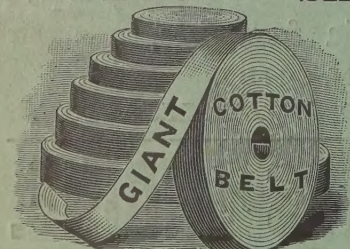
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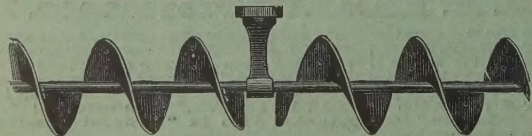
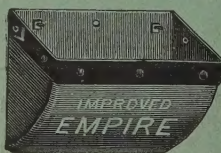
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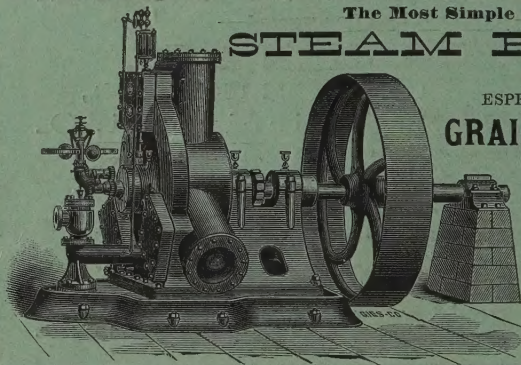
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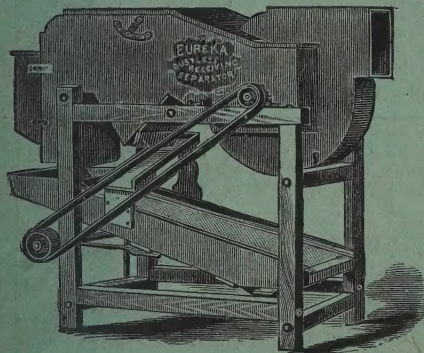
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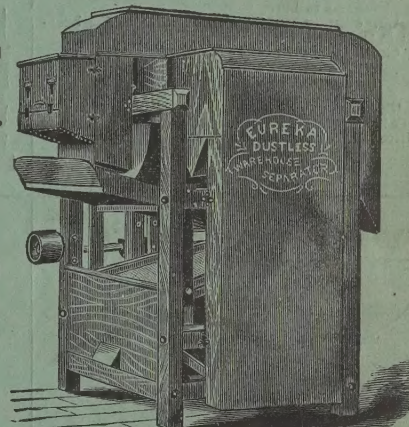
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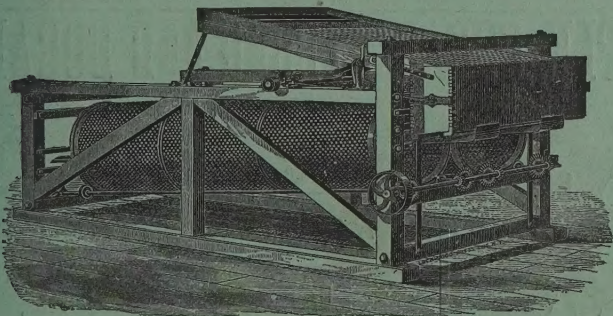
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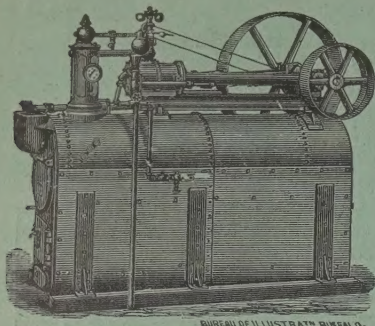
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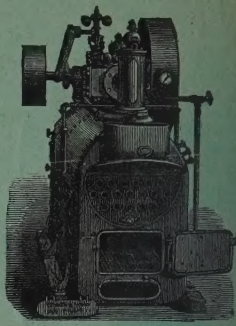


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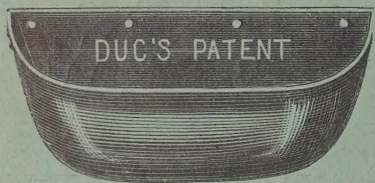
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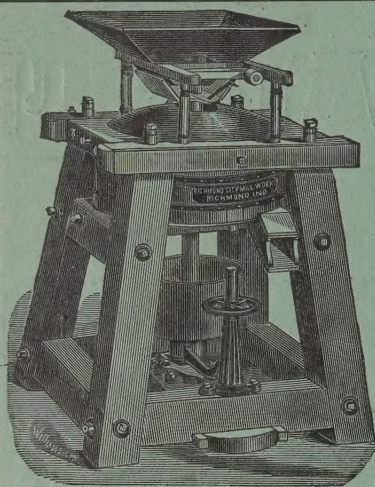
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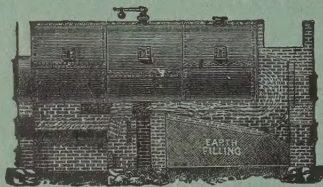
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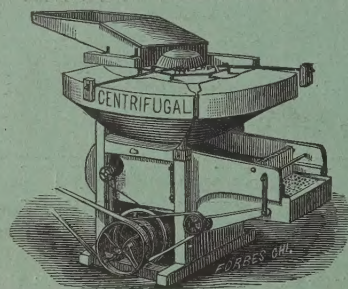
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